BUREAU OF HYGIENE AND TROPICAL DISEASES.

# TROPICAL DISEASES BULLETIN.

Vol. 25.] 1928. [No. 12.

## HELMINTHIASIS.

LIODT. Contribution à l'étude de l'helminthiase intestinale en A.E.F. La répartition du parasitisme chez les travailleurs du Congo-Océan et la cure de déparatisation par le tétrachlorure de carbone. [**Helminthiasis in French Equatorial Africa. Distribution of Parasites in Railway Labourers.**]—*Bull. Soc. Path. Exot.* 1927. Oct. 12. Vol. 20. No. 8. pp. 743–748. [6 refs.]

An examination of 1,720 stools of labourers on the Congo-Ocean Railway was made in August 1927, as a means of sampling the population of French Equatorial Africa and of ascertaining the infestation index. It was also thought that foci of severe infections might be revealed. The survey failed in the latter respect. As regards the various kinds of infections it is noted that the single case of *S. mansoni* came from the Tchad region. Only ten cases of Taenia and 24 of Strongyloides occurred. The common infections were hookworm, whipworm and ascaris. Hookworm occurred in 66·8 per cent. from Central Congo, 66·1 per cent. from Ubangi and 55·1 per cent. from the Tchad. Ascariasis was also very prevalent. Central Congo gave 59·6 per cent., Ubangi 47·7 per cent. and Tchad 42·5 per cent. Whipworm was found in 53·5 per cent. of those from Central Congo, 29 per cent. from Ubangi and 33·4 per cent. from Tchad. The specific action of carbon tetrachloride against the hookworm in cases of mixed infections is commented upon.

R. T. Leiper.

CAFFREY (P. J.). **A Helminthic Survey of Native Administration Prisoners in the Gaol at Maiduguri, Bornu Province.**—*West African Med. Jl.* 1928. Apr. Vol. 1. No. 4. p. 68.

460 patients were examined for helminths especially for ankylostomes, taenia and bilharzia. The method followed was to macerate a small quantity of faeces on a slide with Gram's iodine and to search 150 fields under a one-third objective and a No. 8 ocular [maker ?]. This gave 67 cases of hookworm, 4 of *Schistosoma mansoni* and 17 Taenia. 20 cases of *S. haematobium* were found by first testing for albumen and then slowly centrifuging and examining the deposit on a slide.

R. T. L.

(K3542) Wt P18/261 1,625 12/28 H & Sp Gp 52

DAUBNEY (R.) & CARMAN (J. A.). **Helminthic Infestations of Natives in the Kenya Highlands.**—*Parasitology.* 1928. July. Vol. 20. No. 2. pp. 185–206. [22 refs.] [Division of Veter. Research, & Med. Dept., Kenya Colony.]

At the Government Reformatories in the Highlands of Kenya there is a widespread infestation with *Taenia saginata* and a very light though frequent infection with hookworm. 50 per cent. of the inmates have tapeworm and 57·9 per cent. have hookworm. Carbon tetrachloride combined with oil of chenopodium was found to be a safe and efficient anthelmintic. A series of statistics show the influence of infestations and treatment on the physical conditions of the boys examined.

R. T. L.

ESPIÉ (A.). Parasitisme intestinal des adultes de l'île de Djerba. [**Intestinal Parasites of Adults in the Isle of Djerba, Tunis.**]—*Arch. Inst. Pasteur de Tunis.* 1928. June. Vol. 17. No. 2. pp. 163–166.

Faeces from two hundred adults belonging to various villages of Djerba were examined in an enquiry into the endemic foci for ankylostomiasis in Southern Tunis. In addition to Ascaris, Trichocephalus and Oxyuris, a species of Trichostrongylus and *Hymenolepis nana* were found. A single carrier of hookworm was noted.

R. T. L.

CHANDLER (Asa C.). **The Prevalence and Epidemiology of Hookworm and Other Helminthic Infections in India. Part XII. General Summary and Conclusions.**—*Indian Jl. Med. Res.* 1928. Jan. Vol. 15. No. 3. pp. 695–744. With 10 graphs & 3 maps (1 folding) [30 refs.]

This summary concludes eleven important contributions which have been noted from time to time in this *Bulletin.* As the methods of investigation changed during the progress of the work, an account of them is again given. The enormous variation in the climatic conditions of India is the keynote to the very unequal distribution of hookworm. Occupation does not play so important a part in the epidemiology of hookworm as appears to be the case in China. The vast majority of worms are acquired whilst standing on infested ground during the act of defaecation. Footgear has undoubtedly a controlling influence, but in India shoes are rarely worn in those regions where hookworm is prevalent. Domestic animals eat hookworm faeces, but their rôle in the spread of the infection is not clearly determined. It would appear that the eggs and embryos fail to pass through the gut of cattle and buffaloes alive. In mines, cockroaches eat faeces and destroy hookworm eggs. But the dung beetles provide suitable conditions for their development. Soil also plays an influential part. Very light sandy and gravelly or light sandy loam soils are unfavourable for hookworms where the rainfall is small and irregular in distribution. Heavy clay soil as in the Assam Hills and black cotton soil in the Central provinces and Central India in the Deccan, Hyderabad, Madras and Mysore are also unfavourable media. Artificial irrigation has little effect as the populace resort to the dry spots for defaecation. In India sex influences little. *Necator americanus* is the predominant hookworm

in Southern India. Northwards the *Ancylostoma duodenale* increases in incidence. The author quotes JOLLY that in Burma 5 to 6 per cent. of the worms harboured are *A. duodenale* and no less than 3·8 per cent. are *A. braziliense*. As regards grades of infection the author concludes that less than 100 eggs per gram is practically negligible from both a clinical and an epidemiological standpoint. 100 to 500 eggs per gram is clinically negligible, but epidemiologically important. With 2,100 to 5,000 eggs per gram, the subject only suffers under adverse conditions, while cases from 5,000 eggs upwards per gram may be considered as having well marked hookworm disease. Roughly 100 eggs per gram can be interpreted as representing 8 necators. An index of infection has been worked out which makes possible a direct comparison of the actual amount and severity of hookworm infection in different places. The paper concludes with chapters on the significance of hookworm in the various parts of India. The outstanding fact is that in spite of a very high incidence of infection in some parts of the country, hookworm disease is practically non-existent in most places and is limited to a relatively small percentage of the population, even in the most severely affected areas.

As regards Ascaris and Trichuris infections, these are attributed mainly to grossly polluted drinking water, while flies and dust cannot be considered to be important. Trichostrongylus eggs are very unevenly distributed, but in Rajputana and the Punjab about 1 per cent. infestion is found in almost every village. In Southern India 0·5 per cent. was about the average. Gnathostoma eggs were met with on 3 occasions. The egg of an unidentified worm is mentioned. Heterodera eggs occasionally occurred in over 10 per cent. of the stools examined. Fluke infections do not exist in India except in the Manipur valley, Assam, where *Fasciolopsis buski* was found in 6 per cent. Sporadic cases also occurred in Bengal, Bihar and Orissa and in Madras Presidency. It is very common in Bengal and Assam pigs, which serve as the reservoir. The water nut "Trapa bicornis" is the probable carrier on which the cercariae are encysted. Neither Clonorchis nor Opisthorchis were met with in India or Burma. Eggs of a new species of bilharzia named *Schistosoma incognitum* occurred in 2 cases. *Hymenolepis diminuta* was found in 23 out of 10,000 examinations. 5 per cent. of the Shans in the Shan States of Burma harbour *T. saginata*. A single case, the second recorded, of *Bertiella satyri*, was noted in Calcutta. Prevention of promiscuous soil pollution is the solution of the helminth problem, but it must be recognized that the European types of latrine with sides and roof, and the disagreeable odour which is inevitably associated with them, are very repugnant to the Indian. Many practical suggestions are offered by the author.

R. T. L.

LISSNER (L.). Stuhluntersuchung von 500 philippinischen Schulkindern. [**Stool Examination of 500 Scholars in the Philippines.**]—*Muench. Med. Woch.* 1928. July 6. Vol. 75. No. 27. p. 1163. [1 ref.] [San Carlos Milling Co.'s Hosp., San Carlos, Philippine Isl.]

A microscopical examination of the stools of 500 children by means of smears made with physiological salt solution gave the following results :—

| | |
|---|---|
| Positive indication of worm infection ... | 92·4 per cent. |
| Infection with hookworms ... ... | 16·4 per cent. |
| ,, ,, *Ascaris lumbricoides* ... | 73·0 per cent. |
| ,, ,, Whipworm ... ... | 32·3 per cent. |
| ,, ,, *Oxyuris vermicularis* ... | 7·6 per cent. |

The commonest combination was ascaris and whipworm. 28·8 per cent. had two different species of worms.

R. T. L.

Kopp (F. I.), Dimitrieva (M. A.) & Zwetkowa-Pirogovskaja (A. E.). Helminthologische Beobachtungen im Sevastopolschen Staatlaboratorium. [**Helminthological Observations in Sebastopol.**]—*Russian Jl. Trop. Med.* 1928. Vol. 6. No. 2. German summary p. 141. [In Russian pp. 116–120. 5 refs.]

From 1,700 cases it is concluded that whipworm is the principal helminth in Sebastopol (62·1 per cent.). Taenia 12·6 per cent, *Oxyuris vermicularis* 10·5 per cent., *Hymenolepis nana* 6·1 per cent., *Ascaris lumbricoides* 5·6 per cent., *Dibothriocephalus latus* 0·8 per cent., *Ancylostoma duodenale* 0·3 per cent. The Fülleborn method gave better results than that of Telemann (45·7 per cent. as compared with 16·2 per cent.).

R. T. L.

Doubrovinsky (S. B.), Kranzfeld (A. M.), Rosenfeld (V. D.) & Salamandra (E. G.). Résultats de l'examen helminthologique de certains groupes de la population de Moscou et les problèmes à l'ordre du jour de l'helminthologie médicale. [**Helminth Examination of Certain Population Groups in Moscow.**]—*Jl. Microbiol., Path. Générale et Maladies Infectieuses.* 1927. Vol. 4. No. 4. French summary pp. 523–524. [In Russian pp. 503–522. 28 refs.]

The eggs of 5 species of nematodes and three of cestodes have been found during an examination of the stools of 3,060 individuals in various establishments in and around Moscow. In addition to 873 cases of *Ascaris lumbricoides*, 584 cases of *Trichuris trichiura* and 400 cases of *Oxyuris vermicularis*, 52 cases of *Trichostrongylus* sp. (2 per cent.) and 35 cases of *Ancylostoma duodenale* were noticed. There were 97 cases of *Hymenolepis nana* (3 per cent.) 9 of *Taenia* sp. and 4 of *Dibothriocephalus latus*. Ascaris predominated in the children, 87 per cent. occurring in certain inmates at Malakhovka. Among Jewish children, however, whipworm was of higher frequency than ascaris.

R. T. L.

i. Zotta (G.). Faune helminthologique humaine en Roumanie. Helminthes rares ou nouveaux en parasitologie roumaine. [**Helminths in Man in Roumania.**]—*C.R. Soc. Biol.* 1928. May 21. Vol. 98. No. 16. pp. 1456–1457. [2 refs.] [Parasit. Lab., Serotherap. Inst., Bucharest.]

ii. ——. Faune helminthologique humaine en Roumanie. Présence du *Dicrocoelium dendriticum*, Rudolphi, 1819, (*Dicrocoelium lanceatum*) chez l'homme.—*Ibid.* pp. 1458–1459. [1 ref.] [Parasit. Lab., Serotherap. Inst., Bucharest.]

[1] Twenty new cases are added to the two records of infection of man in Roumania with *Hymenolepis nana* and the occurrence of Strongyloides in three males and a female adds this species to the list of endemic infections.

ii. *Dicrocoelium dendriticum* has been discovered in man eight times in Roumania during recent years. Seven of these showed typical eggs in the faeces. The eighth case was diagnosed from the stool and the adults were recovered at post-mortem.

R. T. L.

Tisseuil (J.) Les parasites intestinaux en Nouvelle-Calédonie. [**Intestinal Parasites in New Caledonia.**]—*Bull. Soc. Path. Exot.* 1928. Mar. 14. Vol. 21. No. 3. pp. 211–214.

The paper briefly sets out the statistical findings of the author. It would appear that 43 per cent. of the inhabitants of New Caledonia are hookworm carriers.

R. T. L.

Neveu-Lemaire (Maurice) & Pellegrin (Jacques). Essai d'ichthyologie médicale. Les poissons hôtes intermédiaires des helminthes parasites de l'homme. [**Medical Ichthyology. Intermediate Fish Hosts of Helminths of Man.**]—*Ann. Parasit. Humaine et Comparée.* 1928. Apr. 1 & July 1. Vol. 6. Nos. 2 & 3. pp. 221–244; 343–367. With 18 text figs. [26 refs.] [Parasit. Lab., Faculty of Med., Paris.]

All the fishes known as secondary intermediate hosts of helminth parasites of man are teleosteans and those which convey the trematode parasites are all fresh water fishes. The author has collated all the available hosts and arranged them systematically with many illustrations. He notes that with rare exceptions the trematodes have two intermediaries. The family Cyprinidae provides the second intermediary for *Clonorchis sinensis, Opisthorchis felineus, Metagonimus yokogawai* and *Echinochasmus perfoliatus*. The *Heterophyes* genus is conveyed by the family Mugilidae. According to Ciurea *Idus jeses* in the family Cyprinidae is the intermediate host of the giant kidney worm. The larval plerocercoids of *Dibothriocephalus latus* develop chiefly in the Salmonidae. This invaluable work of reference concludes with a tabular list.

R. T. L.

Bequaert (J.). **Mollusks of Importance in Human and Veterinary Medicine. Parts I and II.**—*Amer. Jl. Trop. Med.* 1928. Mar. & May. Vol. 8. Nos. 2 & 3. pp. 165–182; 215–232. [91 refs.]

This extensive and very readable account of molluscs of medical and economic importance not only reviews recent work but usefully summarizes the classification of these mollusca and outlines the prophylactic measures which have been advocated, viz., destruction: (1) by drying; (2) by chemical means; (3) by biological controls. In the last category an interesting quotation is given from the *Journal of the New York Entomological Society* (1927) that "the luminous larva of the firefly attacks the snail [*Blanfordia nosophora*] and thus checks the spread of the parasite [*S. japonicum*] and of the disease it causes." The author has dealt comprehensively with the enemies of molluscs in Pilsbry and Bequaert's Revision of African Mollusks (1927, pp. 469–479 and 532–540).

R. T. L.

GARIN (Ch.), DOUBROW & MOUNIER. Les méthodes d'enrichissement appliquées à la recherche des oeufs de parasites dans les matières fécales. Notre modification de la méthode de Telemann. [**Enrichment Method for Detection of Eggs in Faeces.**]—*Lyon Méd.* 1928. Mar. 25. Year 60. Vol. 141. No. 13. pp. 341–345. [25 refs.]

A modification of TELEMANN'S method for the concentration of helminth eggs is proposed. The new method is rapid and has a very high co-efficient. It does not cause shrivelling of the eggs. The procedure is as follows : To 30 cc. of hydrochloric acid sulphuric ether is added in small quantities in a graduated flask of 120 cc. which is constantly shaken under a stream of cold water. A limpid homogeneous mixture forms at first. The addition of ether is continued, the flask being kept continually shaken under the stream of cold water until the flask is filled. The liquid now separates into two layers, a lower clear layer and an upper layer which also clarifies rapidly. It is necessary to shake the reagent when used. A portion of faeces is emulsified in from 5 to 20 times its volume of water. This is allowed to sediment for a minute to allow the larger particles to sink. About 10 cc. are then poured into a centrifuge tube. Three or 4 cc. of the reagent is added and the tube is vigorously shaken. When the contents are thoroughly mixed about 30 turns in the centrifuge separate the fluid into 3 distinct layers. The bulk of the contents of the tube is thrown out and the last 2 or 3 drops which remain behind are examined under a coverslip. The procedure, including the examination of the preparation, occupies five minutes only. It is exceptional to find vegetable debris but muscle fibre fragments when badly digested may occur in quantity in the preparation.

R. T. L.

TIPREZ (Jean) & MOULIN (H.). Comparaison des résultats fournis, dans la recherche des oeufs de parasites dans les selles, par récolte unique ou par récoltes multiples. [**Comparison between Results of a Single Stool Examination and of a Series.**]—*C.R. Soc. Biol.* 1928. June 22. Vol. 99. No. 21. pp. 231–232. ["Saint Sauveur" Hosp., Lille.]

A comparison has been attempted between the results of an examination of a single stool and of a series of 8 to 10 consecutive stools. Of 45 patients, 26 showed nothing by either method. In eleven nothing was found from the examination of a single stool while eggs of helminths and protozoan cysts were found in a mixture of stools. In 6 cases eggs and cysts were obtained by both methods and in two cases scanty eggs were found in the single stool and none in the mixed sample.

R. T. L.

BRUNNER (Matthew). **Immunological Studies in Human Parasitic Infestation. I. Intradermal Testing with Parasitic Extracts as an Aid in the Diagnosis of Parasitic Infestation.**—*Jl. Immunology.* 1928. Jan. Vol. 15. No. 1. pp. 83–101. [16 refs.] [Jewish Hosp. Brooklyn & Cornell Univ. Med. College & New York Hosp.]

The examination of stools for ova and parasites is, in the opinion of the author, "an unreliable and unsatisfactory method of diagnosing parasitic infestation." Various workers have turned to skin-testing

for sensitivity as a possible aid to diagnosis. A series of subjects have been tested routinely with Ascaris and Dibothriocephalus saline extracts to determine how far the dermal reaction was specific and if this reaction could be utilized for practical purposes. The author finds that the reactions elicited are similar to those in hay fever and asthma. The absence of a positive reaction was not an absolute criterion of infection, for one person infected with *D. latus* remained negative to repeated tests. Extract of *Ascaris lumbricoides* gave a reaction with any nematode infestation. Constitutional reactions were elicited with Ascaris extract in three asthmatic persons, which indicates that extreme caution is necessary with this type of extract. A marked reaction may indicate either a recent parasitic infestation or the actual presence of parasites. It is interesting to note that a definite increase of eosinophiles was noted in some of the cases during the tests.

R. T. L.

Coventry (Frances A.) & Taliaferro (William H.). **Hypersensitiveness to Helminth Proteins. Cutaneous Tests with Proteins of Ascaris, Hookworm and Trichuris in Honduras.**—*Sixteenth Ann. Rep. Med. Dept. United Fruit Company, Boston, Mass.* 1927. pp. 219–232. [27 refs.]

One hundred and thirty Honduras patients were tested by the scratch method for hypersensitiveness to ascaris protein, as shown by wheal formation and erythema within 20 minutes after testing. The test has, however, no diagnostic significance, although 80 per cent. showed a reaction, for the sensitiveness could not be correlated with the presence of ascaris or other helminths. No relation could be demonstrated between skin reactivity and the presence of precipitins in the blood; 80 per cent. of 84 patients showed wheal formation and erythema after a scratch test with hookworm extracts but again no correlation existed between reaction and the occurrence of infection. With whipworm extracts 25 per cent. of 64 cases reacted but without correlation.

R. T. L.

Bogojawlensky (N. A.) & Demidowa (A. J.). Sur la présence dans la mucus nasal de l'homme des oeufs de vers parasites. [**Eggs of Parasitic Worms in the Nasal Mucus of Man.**]—*Russian Jl. Trop. Med.* 1928. Vol. 6. No. 3. French summary p. 206. [In Russian pp. 153–156.]

In 47 out of 283 (i.e., 17·6 per cent.) school children helminth eggs were found in nasal mucus. 8·8 per cent. of the positive cases showed Taenia sp., 4·2 per cent. *Oxyuris vermicularis*, 3·2 per cent. *Ascaris lumbricoides*, 1 per cent. *Trichocephalus trichiuris* and one case (·4 per cent.) gave *Hymenolepis nana*. The children were of Armenian, Turco-Tartar and Russian nationalities.

R. T. L.

Lane (Clayton). **Recent Advances in the Diagnosis and Treatment of Human Helminthiasis.**—*Brit. Med. Jl.* 1928. Aug. 4. pp. 191–195.

This was a paper read at the Tropical Section of the British Medical Association. Recent work has been largely concerned with hookworm.

The recent advances in diagnosis are summarized under: (*a*) the accuracy of concentrative diagnostic techniques; (*b*) the rate of oviposition of hookworms; (*c*) the degree of infection of a community. The subdirect or culture method of diagnosis is considered to be of little value apart possibly from infections elucidated by faecal examination. Under indirect diagnosis the author deals with: (*a*) the evidences of reaction to helminthic parasites; (*b*) appraising the damage done by infection. In the last section, which deals somewhat briefly with treatment, the use of carbon tetrachloride is discussed in the light of recent statistics and the author expresses the opinion that its general adoption is retrogressive. "Herd treatment" is regarded in the absence of herd diagnosis as morally unjustifiable.

R. T. L.

i. Rebello (Silvio), da Costa (S. F. Gomes) & Rico (J. Toscano). Sensibilité des cestodes à l'action de quelques anti-helminthiques. [**Susceptibility of Cestodes to the Action of Anthelmintics.**]—*C.R. Soc. Biol.* 1928. Feb. 17. Vol. 98. No. 6. pp. 473–475. With 2 text figs. [1 ref.] [Pharm. & Therap. Inst., Faculty of Med., Lisbon.]

ii. ——, —— & ——. Réactions de l'*Ankylostoma* étudiées par la méthode graphique. [**Reactions of Ancylostoma studied by the Graphic Method.**]—*Ibid.* pp. 475–477. With 1 text fig. [Pharm. & Therap. Inst., Faculty of Med., Lisbon.]

i. Charts are given showing the preliminary results obtained by the graphic method of recording the effect of various anthelmintics on cestode segments; *Taenia serrata* and *Dipylidium caninum* being used for the tests.

ii. Specimens of hookworms were obtained from dogs in Lisbon for these tests. The authors are unable at present to say precisely whether they belong to the species *A. duodenale* or *A. brasiliense*. They appear to have two pairs of teeth. The worms were kept alive in Rhode-Saïto's liquid (pH — 6·4) at 37°–38° C. and showed remarkable activity. An emulsion of chenopodium (1 in 5,000 to 1 in 1,000) proved less effective than in the authors' earlier experiments with Ascaris, etc.

R. T. L.

Takano (Rokuro). **Bacteriological and Parasitological Study of the Night-Soil Disposal in Japan. Parts I and II.**—*Japan Med. World.* 1928. Feb. 15 & Mar. 15. Vol. 8. Nos. 2 & 3. pp. 32–36; 63–67.

Eggs of hookworm and roundworm do not develop at all in night-soil in a Japanese privy used experimentally, but tend to die off, especially in summer, although a period of one month at least is necessary for hookworm and three months for roundworm. In spring and autumn the period lengthens. When night-soil is kept it gradually liquefies. The specific gravity of the parasite eggs is greater than the faecal fluid and the upper layers do not contain any eggs. On these basic observations the author has devised a new night-soil receptacle. It is an oblong box of concrete, coated interiorly with waterproof mortar. It is closed except for the tube leading in the night-soil and the manhole

for cleansing. The tube has an internal diameter of one foot, and a length of at least three feet. Four partitions divide the receptacle into compartments. The overflow from the first fills the succeeding one and so on. The receptacle has a capacity for storing the night soil of a family for 100 days. A family of ten will require a receptacle of 1,000 litres. 500 litres are stored in the first compartment which measures 3 feet in length, width and depth. The remaining 500 litres are apportioned among the other compartments. If the receptacle were required to deal only with parasite eggs two receptacles would prove efficient. In Japan the local governments have granted a subsidy to those constructing these improved privies.

R. T. L.

Mackenzie (L. H.). **Helminthic Fever.** [Correspondence.]—*Indian Med. Gaz.* 1928. July. Vol. 63. No. 7. pp. 412–414. With 3 charts in text.

As "helminthic fever" appears to be little emphasized three charts of different types are given illustrating the effect of ascaris infection. Many cases have come under the author's notice since 1911 in which fever has seemingly been entirely due to some form of intestinal parasite. These cases are readily cured by anthelmintics.

R. T. L.

Kohno (Michio). [**Examination of the Eggs of Parasites attached to Green Vegetables.**]—*Tokyo Iji-Shinshi* (*Tokyo Med. News*). 1927. Aug. No. 2536. [Summarized in *Japan Med. World.* 1928. Jan. 15. Vol. 8. No. 1. p. 14.]

An examination of market vegetables in Japan revealed the common occurrence of eggs of non-human fluke parasites. Of nematode eggs, those of *Ascaris lumbricoides* were those most frequently met. Ankylostome eggs occurred sometimes. Other parasite eggs were very rare.

R. T. L.

Cade, Morenas & Jeannin. De l'influence des toxines vermineuses sur l'évolution de la tuberculose expérimentale. [**Influence of Helminth Toxins on Development of Tuberculosis.**]—*Jl. Physiol. et Path. Gén.* 1928. June. Vol. 26. No. 2. pp. 250–255. [Lab. of General Path., Faculty of Med., Lyons.]

Experiments on guineapigs tend to show that the injection or ingestion of verminous products in slight doses aggravates and accelerates experimental tuberculosis in these animals.

R. T. L.

Ciculescu-Mavromati (Marie). Choc anaphylactique chez une malade, à la suite d'une injection intradermique d'extrait vermineux. [**Anaphylactic Shock following an Intradermal Injection of Worm Extract.**]—*Bull. et Mém. Soc. Méd. Hôpit. de Bucarest.* 1927. Apr. Vol. 9. No. 4. pp. 58–66. [19 refs.]

A clinical history is given of an epileptic young woman suffering from gastro-intestinal and other symptoms, probably helminthic in origin, in whom a typical anaphylactic shock followed the intradermal injection of an ascarid extract. The stools showed very many whipworm eggs and there was an eosinophilia of 10 per cent.

R. T. L.

Ciculescu-Mavromati (Marie). Un cas d'anaphylaxie vermineuse transmise de l'homme au cobaye. [**Verminous Anaphylaxis transmitted from Man to Guineapig.**]—*C.R. Soc. Biol.* 1927. Oct. 13. Vol. 97. No. 26. pp. 995–997. [1 ref.] [Cantacuzène Inst. & "Coltzea" Hosp., Bucarest.]

A state of passive anaphylaxis has been produced in guineapigs with serum from a patient with anaphylactic shock, following an intradermal reaction from an ascaris extract, but the results have been very inconstant.

R. T. L.

Wright (W. Rees). **Note on the Locomotion of the Redia of** *Fasciola hepatica.*—*Parasitology.* 1928. Apr. Vol. 20. No. 1. pp. 113–114. [2 refs.] [Dept. of Agric., Univ. College, Bangor.]

It is suggested that the collar and the "posterior processes" or "procruscula" are jointly concerned in the movements of the redia. The latter anchor the organism in the burrow by becoming very turgid. At maximum elongation the contraction of the muscular collar causes it to become prominent and to anchor the enlarged anterior end in turn, the posterior end then becoming attenuated.

R. T. L.

Sénevet (G.) & Champagne (R.). Troisième cas algérien de distomatose humaine à *Fasciola hepatica*. Bons effets du stovarsol. [**Third Algerian Case of** *F. hepatica* **Infection.**]—*Bull. Soc. Path. Exot.* 1928. Mar. 14. Vol. 21. No. 3. pp. 222–224. [2 refs.] [Pasteur Inst., Algiers.]

To the two recorded cases of infection of man in Algeria with *Fasciola hepatica*, the author adds a third. The clinical condition is described and is reported to have improved after stovarsol.

R. T. L.

Croste (R.). Un cas autochtone d'infection humaine par *Fasciola hepatica*. [**Indigenous Case of** *F. hepatica* **Infection in Man.**]—*Ann. Parasit. Humaine et Comparée.* 1928. July 1. Vol. 6. No. 3. pp. 321–322.

A native of Anglet near Bayonne, with anorexia, digestive troubles and attacks of diarrhoea was found to harbour *Fasciola hepatica* during an incision of the bile duct for biliary obstruction.

R. T. L.

Takahashi (S.). Ueber die Entwicklungsgeschichte des *Fasciola hepatica* in Japan. [**Life History of** *F. hepatica* **in Japan.**]—*Fukuoka-Ikwadaigaku-Zasshi. Fukuoka Acta Med.*) 1927. May. Vol. 20. No. 5. German summary pp. 32–33. [In Japanese.] [Hyg. Inst., Imperial Kyushu Univ., Fukuoka, Japan.]

*Limnaea truncatula* has not been found in Kyushu, Japan. The intermediate host of *Fasciolahepatica* is the widely distributed *Limnaea pervia.* (Another intermediary found once appears to be new.)

R. T. L.

Codvelle, Grandclaude & Vanlande. Un cas de distomatose humaine à " *Fasciola gigantica* " (Cholécystite aigue distomienne avec lésions particulières de la paroi vésiculaire). [**Case of Human Infestation with** *F. gigantica.*]—*Bull. et Mém. Soc. Méd. Hôpit. de Paris.* 1928. July 12. Year 44. 3rd Ser. Vol. 52. No. 24. pp. 1180–1185. [2 refs.]

This record of infestation of man with *Fasciola gigantica* forms the third in literature. A clinical history and the results of a histopathological examination are given.

R. T. L.

Faust (Ernest Carroll). **Lung-Fluke Infection among the Formosan Aborigines.**—*China Jl.* 1928. Apr. Vol. 8. No. 4. pp. 191–194. With 10 figs. on 4 plates. [Peking Union Med. College, Peking.]

An interesting account is given of a visit to the endemic regions of Paragonimus in Formosa with brief outline of the life history, as demonstrated by K. & S. Yokogawa. The author states that no autochthonous case of pulmonary distomiasis has been proved for China but the constant migration of Chinese to and from the mainland, especially Fukien, where both first and second intermediary hosts abound, make the ultimate establishment of the parasite in China a possibility. The custom of the indigenous Chinese not to eat fresh-water crab meat raw accounts for the absence of the infection in China.

R. T. L.

Cilento (R. W.). **Trematode Infestations in Northern Melanesia.**—*Med. Jl. Australia.* 1927. Nov. 19. Supplement No. 13. pp. 400–401. [4 refs.]

A somewhat alarmist view of the significance of the author's discovery, reported in 1927, of an indigenous case of Paragonimus in Northern Melanesia. [See this *Bulletin*, Vol. 24, p. 512.] No new facts are added.

R. T. L.

Ishii (N.). **Investigation of Clonorchiasis in Canton District in South China.**—*Taiwan Igakkai Zasshi* (*Jl. Med. Assoc. Formosa*). 1928. June. No. 279, English summary p. 44. [In Japanese.] [Hakuai-Kai Hosp., Canton, China.]

164 out of 335 patients among natives in the Canton district of China had *Clonorchis sinensis* eggs in the stool. The scientific names of the local first and second intermediary hosts will be published later by the author.

R. T. L.

Takano (Sadasuke). **On the Occurrence of** *Clonorchis sinensis* **in Ohra County in Gumma Prefecture.**—*Tokyo Iji-Shinshi* (*Tokyo Med. News*). 1927. Dec. No. 2552. [Summarized in *Japan Med. World.* 1928. Mar. 15. Vol. 8 No. 3. p. 70.]

The author reports on an examination of the freshwater molluscs and fishes in the Gumma prefecture [but the English summary does not indicate the result of this examination beyond stating that the two intermediaries of Clonorchis are prevalent]. 16 out of 98 enlisted students and 5 out of 22 newly enlisted students suffered from clonorchiasis.

R. T. L.

Ohta (Jyuan). [**On the Distribution of** *Clonorchis sinensis* **in Aichi Prefecture. III. Its Occurrence in Nakajima, Haguri and Niwa Counties.**] —*Aichi Igakkwai Zasshi* (*Jl. of Aichi Med. Soc.*) 1927. Aug. Vol. 34. No. 8. [Summarized in *Japan Med. World.* 1928. Feb. 15. Vol. 8. No. 2. p. 44.]

The county of Nakajima in the prefecture of Aichi is a newly recorded endemic focus of *Clonorchis sinensis*. *Melania striatulus* var. *japonicus* thrives there and was proved experimentally to be an intermediate host. Certain [unspecified] fish were also implicated as second intermediaries.

R. T. L.

Asada (Junichi). [**Determination of the First Intermediate Host of** *Heterophyes heterophyes* **occurring Parasitic in Human Body in Japan and an Experimental Investigation on its Development.**]—*Tokyo Iji-Shinshi* (*Tokyo Med. News*). 1928. Mar. No. 2564. [Summarized in *Japan Med. World.* 1928. May 15. Vol. 8. No. 5. p. 134.]

The first intermediary of *Heterophyes nocens* in Japan is a species of brackish water snail popularly known as "Hetanari" and technically named *Tympanotonus microptera*. The cercariae die within 20 minutes in [fresh ?] water, but keep alive in saline for a long time. They do not attain final development in fresh-water fish, but encyst in sea water fishes. In a dog fed with fish containing encysted cercariae the worms become adult within a week.

R. T. L.

Majima (Mitsuo). [**On** *Echinostoma macrorchis* **found Parasitic in Human Body.**]—*Tokyo Iji-Shinshi* (*Tokyo Med. News*). 1927. Dec. No. 2552. [Summarized in *Japan Med. World.* 1928. Mar. 15. Vol. 8. No. 3. p. 70.]

*Echinostoma macrorchis* has been found in the body of a boy in Kyushu. Thirty-four mature flukes were passed after oil of chenopodium. A second treatment brought away an additional 27, and a third resulted in the passage of 5 more.

R. T. L.

Cawston (F. G.). **The Need for More Careful Diagnosis, More Efficient Prophylaxis, and Complete Cure of Cases suffering from Bilharzia Disease.**—*Trans. Roy. Soc. Trop. Med. & Hyg.* 1928. Mar. 31. Vol. 21. No. 6. pp. 473–478. [4 refs.]

In endemic regions the surgeon should always suspect schistosome infection where, in male or female, there are ill defined pains in the lower portion of the abdomen. Unnecessary operations for appendicitis or chronic peritonitis might thus be avoided. In women bilharzial pyuria is more common than in men and albumen in the urine is more likely to be overlooked. Cawston is of opinion from the number of cases of appendicitis, dysentery and pelvic conditions in women which are due to bilharziasis that there is a decided increase in bilharzia infection both of S. *haematobium* and *S. mansoni*. The molluscan hosts in Natal breed chiefly in sugar plantations and in brick-fields, and in pools in the principal rivers and their tributaries. *S. mansoni* is carried in Natal by *Planorbis pfeifferi* which breeds freely in water cress. In small pools which have been completely dry throughout the winter months fresh-water snails can often be found and the problem of their survival is a difficult one to solve. In Natal many schools use shower-baths supplied from rain-tanks. An alternative is to pass the

river water, before it is supplied to the town swimming-bath, through the power-station to destroy cercariae by heat. Emetine causes undesirable symptoms such as cardiac depression and some other remedy must be sought for oral administration. It is noted that the cases of bilharzia infection encountered at coastal ports largely come from inland areas, such as Umtali in Rhodesia.

R. T. L.

Cawston (F. G.). **Trematode Parasites among Fishermen and the Poisoning of** *Physopsis.*—*Ann. Trop. Med. & Parasit.* 1928. June 12. Vol. 22. No. 1. pp. 63–65. [4 refs.]

After citing various authors to show that certain plants are intensely poisonous to fish the author states that *Tephrosia macropoda* is highly toxic to *Physopsis* sp. and suggests its commercial possibilities for eradicating the carriers of bilharzia disease.

R. T. L.

Cawston (F. G.). **Environmental Influences that hinder the Development of** *Physopsis.*—*Jl. Trop. Med. & Hyg.* 1928. May 15. Vol. 31. No. 10. p. 117. [1 ref.]

The decrease of bilharzia infection all along the Natal coast is associated in the author's mind with the growth of sugar cane. The molluscs are attracted by the cane and are afterwards destroyed when the canes are burned. The cultivation of some poisonous plant such as *Tephrosia macropoda* is suggested.

R. T. L.

Cawston (F. G.). **The Control of Bilharzia Disease.**—*Kenya & East African Med. Jl.* 1928. July. Vol. 5. No. 4. pp. 101–111.

From a limited experience it appears that the oral administration of carbon tetrachloride in repeated doses in water or milk, without an aperient unless biliousness supervenes, will enhance the value of antimony given intravenously and may even cure some cases where intravenous injections are difficult to arrange. The active principle of Tephrosia would appear to be one hundred times more effective in the destruction of examples of Physopsis than the more widely recommended copper sulphate. Tephrosia is widely distributed in the bilharzial districts of South Africa and is easily grown.

The author is of opinion that the return of troops from Egypt and other parts of the African continent where *S. mansoni* abounds has resulted in an increase of dysenteric symptoms and bilharzial appendicitis in parts where these complications were rare.

R. T. L.

Christopherson (J. B.). **The Elimination of Bilharzia Disease.**—*Jl. Trop. Med. & Hyg.* 1928. Apr. 16. Vol. 31. No. 8. pp. 89–90.

The author draws attention to the report in the "Star" of Johannesburg that a bilharzia "camp" had been formed at Rustenburg in Western Transvaal for the treatment of school children. "With the school children cured and instructed in the knowledge of sanitation the

necessity for extermination of the water-snail will not be so necessary because there will be few patients to infect the snail." It is evident that the author's sympathies lie with the alternative method of irrigating the human veins with tartar emetic in place of irrigating the waterways with copper sulphate.

R. T. L.

FAIRLEY (N. Hamilton). **Bilharzia in Australian Troops.**—*Health.* Melbourne. 1928. May. Vol. 6. No. 3. pp. 75–77.

The Commonwealth Government made a special grant for the purpose of reinvestigating the health of treated cases of bilharzia infection contracted during the war by Australian troops stationed in Egypt. It is proposed to confine the examination to single skin reactions, blood tests and investigations of the urine. As the present addresses of many treated cases are unknown to the Department of Repatriation an appeal is made for the co-operation of medical practitioners, regimental medical officers and officials of soldiers' associations.

R. T. L.

BONNIN (Henri). Splénomégalie et bilharziose intestinale. Splénomégalie égyptienne. [**Splenomegaly and Rectal Schistosomiasis.**]—*Gaz. hebd. Sci. Méd de Bordeaux.* 1928. June 17 & 24. Vol. 49. Nos. 25 & 26. pp. 387–396; 403–413. With 9 figs. [Numerous refs.] Reprinted at pp. 25-75 of "Titres et Travaux Scientifiques (1924-1928) du Docteur Henri Bonnin." Bordeaux: A. Destout Ainé, Printer.

A valuable and very detailed review of recent literature on parasitic splenomegaly is given. The author has investigated fully and reports upon a case which presumably became infected in Somaliland, in which bowel lesions were found somewhat exceptionally in the small intestine. The author is of opinion that the term Egyptian splenomegaly ought to be reserved for those cases which have not been definitely proved to be of bilharzial origin.

R. T. L.

DIAMANTIS. Le parasite bilharzien possède-t-il chez l'homme un stage hépatique. [**Has Schistosoma an Hepatic Stage in Man?**]—*Jl. Egyptian Med. Assoc.* 1928. June. Vol. 11. No. 6. pp. 212–249. With 8 text figs.

This is a lengthy exposition of recent views on the migration of the cercariae in the definitive host and a statement of the author's personal conviction that there is no "hepatic" stage in this migration in man. He believes that the cercariae pass from the skin in the region of the perineum directly to the two viscera chiefly implicated by the disease.

R. T. L.

BRUMPT (E.). L'homme est-il le seul semeur de germes dans le cas de la bilharziose vesicale? [**Is Man the Only Reservoir of** *S. haematobium*?]—*Bull. Acad. Méd.* 1928. July 10. Year 92. 3rd Ser. Vol. 100. No. 28. pp. 813–818.

To the list of animals which may be experimentally infected with *Schistosoma haematobium* the author has added the hedgehog. He

draws attention to the possible importance of monkeys and hedgehogs as natural reservoirs of the disease and suggests that the susceptibility of domesticated animals would be well worth study. A later communication is promised upon the mechanism of the migration of eggs in the tissues and the factors determining the localization of the bilharzia worms in the organs of experimental animals. In the hedgehog no bladder invasion accompanied the intestinal lesions.

R. T. L.

Walkiers (J.). Cinq cas de schistosomiase à oeufs dépourvus d'éperon dans le Haut-Uelé. [**Five Cases of Schistosomiasis with Spineless Eggs from Upper Welle.**]—*Ann. Soc. Belge de Méd. Trop.* 1928. June. Vol. 8. No. 1. pp. 21–22.

During the course of a large series of faecal examinations made at Faradje in 1925 the author discovered trematode eggs with smooth shell and without spine, in 5 cases with bloody diarrhoea. Many of the eggs contained active miracidia. It is thought that the eggs belong to a new species of schistosome for which the name *S. faradjei* is proposed. In a discussion of the paper M. Rodhain points out that similar eggs without spine have been reported from Egypt and the Sudan.

R. T. L.

Kirkland (Hugh T.). **A Case of Schistosomiasis presenting Some Unusual Features.**—*Jl. Trop. Med. & Hyg.* 1928. Apr. 2. Vol. 31. No. 7. pp. 78–79. With 1 text fig. [1 ref.]

A soldier who had served in South Africa in 1901–2 passed *S. haematobium* eggs in urine in India in 1902. Eggs were again found in 1915 after a long negative intervening period of about 5 years. In 1921 he was admitted with delusional insanity into a mental hospital but no eggs were then found. In 1923 ova were present with haematuria. In 1925 (August) there was haematuria without ova, but after treatment with tartar emetic ova appeared. In 1927 ova and blood were present in the urine. The author noted a gradual and increasing appearance of pigment with progressive emaciation and intestinal disturbance which suggested an involvement of the suprarenals. There was an absence of eosinophilia.

R. T. L.

Khalil (M.). **Vesical Bilharzia: Double Infection.** [Memoranda.]—*Brit. Med. Jl.* 1928. Mar. 31. p. 546.

Double infection of the urinary and intestinal tracts with the two species of Schistosoma, *S. haematobium* and *S. mansoni* is by no means rare. The author cites his previously published data showing that out of 7,090 individuals which had been examined 56 had *S. mansoni* eggs in the urine. Of these 48 had a urinary infection with both parasites while 8 had *S. mansoni* alone.

R. T. L.

Brumpt (E.) & Werblunsky (S.). Evolution de *Schistosoma haematobium* chez *Bullinus contortus*. [**Development of** *S. haematobium* **in** *B. contortus*.]—*Bull. Soc. Path. Exot.* 1928. Jan. 11. Vol. 21. No. 1. pp. 8–9.

Specimens of *Bullinus contortus* collected in the region of Porto Vecchio, Corsica, were experimentally submitted to infection with

miracidia of *Schistosoma haematobium*. 35 molluscs survived 52 days after the experiment and of these 28 (i.e., 80 per cent.) were found to be infected. This remarkable susceptibility supports the contention of Anderson that the transfer of African troops to Corsica is a potential source of danger to the local population.

R. T. L.

Nessmann (V.) & Trensz (F.). Nouveaux cas de bilharziose intestinale à *Schistosoma haematobium* observès au Gabon. [**Intestinal Schistosomiasis due to** *S. haematobium* **in Gabon.**]—*Ann. Parasit. Humaine et Comparée.* 1928. Apr. 1. Vol. 6. No. 2. pp. 182–185. [Dr. Schweitzer's Hosp., Lambarene, Gabon.]

The authors remark on the frequency of intestinal infection with *S. haematobium* in Gabon, French West Africa, and the absence of indications of vesical implication. Only three cases of rectal infection are specifically recorded, but eight other cases are mentioned where no microscopical examination could be made to confirm the apparent absence of vesical infection.

R. T. L.

Cort (W. W.). **Schistosome Dermatitis in the United States (Michigan).** —*Jl. Amer. Med. Assoc.* 1928. Mar. 31. Vol. 90. No. 13. pp. 1027–1029. With 1 text fig. [7 refs.] [Univ. of Michigan Biol. Station & Dept. of Helminth., Johns Hopkins Univ. School of Hygiene, Baltimore, Md.]

Cases of dermatitis of unknown etiology have developed for years in persons wading for biological specimens at the Michigan Biological Station on Douglas Lake, Michigan, and other cases have been noted at certain other resorts in that region. The author, while collecting molluscs, accidentally discovered that *Cercaria elvae* produced a severe prickling sensation on the wrists followed by papules and in 48 hours a pustular eruption with intense itching. After 4 days the swelling had disappeared and in 5 days the pustules began to dry up. The mollusc belonged to the species *Lymnaea emarginata-angulata*.

R. T. L.

Bernard (L. M. J.). Le traitement de la bilharziose vésicale. [**Treatment of Vesical Schistosomiasis.**]—*Arch. Méd. et Pharm. Milit.* 1928. June. Vol. 88. No. 6. pp. 939–945. [3 refs.]

The danger of schistosomiasis becoming endemic in Corsica and the South of France from the infection of local Bullinus by Senegalese troops is not imaginary. Over 6 per cent. of the troops examined have been found to be carriers of *S. haematobium*. Treatment consists of intravenous injections with tartar emetic and diathermic coagulation of the vesical lesions. 40 cases have been treated by this combination and the cures have been exceptionally rapid. Hospital supervision is however necessary for about six weeks.

R. T. L.

KHALIL (M.). **Accidents and Complications occurring during the Treatment of Bilharziasis by Antimony Compounds.**—*Jl. Egyptian Med. Assoc.* 1928. Mar. Vol. 11. No. 3. pp. 97–106. [4 refs.] [Research Section, Public Health Dept., Cairo, Egypt.]

The author has collated the experience of the staffs of the Ankylostoma and Bilharzia Clinics and has set out the various indications and contra-indications for treatment, the method of preparing and administering the treatment and the symptoms appearing after injection. These latter comprise coughing, fainting, rise of temperature, vomiting and sudden death. During 1927 6 fatal cases were recorded among 284,934 cases of injection with tartar emetic, but "it is certain that the official number of deaths . . . is very much below what is expected. There is no doubt that many cases are concealed by the relatives . . . to avoid post-mortem examination and legal investigation."

R. T. L.

SHATTUCK (George C.) & WILLIS (Paul T.) **Schistosomiasis treated with Antimony Sodium Thioglycollate and with Antimony Thioglycollamide.**—*Jl. Trop. Med. & Hyg.* 1928. May 15. Vol. 31. No. 10. pp. 115–116. [3 refs.] [Harvard Med. School, Boston, Mass.]

Antimony sodium thioglycollate and antimony thioglycollamide have been used successfully in the treatment of granuloma inguinale in the United States and have been shown to have a toxicity considerably lower than tartar emetic. It has been found by the authors, working in Liberia, that there was a markedly beneficial action in a case of urinary bilharziasis. Other tests were made by Dr. K. Waller TODD at Yakusu in the Belgian Congo, but details were not given of the score of cases in which "prompt and favourable effects" are reported.

R. T. L.

SOBHY (M.). **Bilharziasis of the Conjunctiva.**—*Jl. Egyptian Med. Assoc.* 1923. Jan. Vol. 11. No. 1. pp. 12–15. With 2 text figs. and 2 coloured plates.

The case described is one in a child aged 8 years with a swelling on the upper eyelid, suggesting an abscess. On exploratory incision no pus was found. Microscopical examination of the growth showed the presence of terminal spined eggs of *S. haematobium*.

R. T. L.

ANDERSON (Ch.) & DE LAGOANÈRE (J. L.). La bilharziose en Tunise. Nouveaux essais d'infestation de *Bullinus brocchii* avec des oeufs de *Schistosomum haematobium*. [**Attempts to infest** *B. brocchii* **with** *S. haematobium* **in Tunis.**]—*Arch. Inst. Pasteur de Tunis.* 1927. Dec. Vol. 16. No. 4. pp. 397–399. [4 refs.]

The presence of Senegalese troops in Tunis gave the authors an abundance of material to conduct experiments with *Bullinus brocchii*. In two of the dissections sporocysts were found; the others were negative. The experiments were made during March and April.

R. T. L.

Leiper (R. T.). **The Occurrence in Cyprus of** *Bullinus contortus* **in the Endemic Area of** *Schistosoma haematobium.*—*Jl. Helminthology.* 1928. June. Vol. 6. No. 2. pp. 117–120. [2 refs.]

At Syrianokhori, the only village in Cyprus in which *Schistosoma haematobium* is known, specimens of *Bullinus contortus* were found in the deep irrigation channels carrying water from the river. Search in several other parts of the island failed to reveal this species. The distribution of the mollusc and of the disease coincide.

R. T. L.

Angel Marín (Rafael). **Studies on Schistosomiasis** (*S. mansoni*) **in Porto Rico. III. Cercariae from** *Planorbis guadeloupensis.*—*Porto Rico Rev. of Public Health & Trop. Med.* 1928. Apr. Vol. 3. No. 10. pp. 397–402. With 4 figs. [3 refs.] [School of Trop. Med., Univ. of Porto Rico.]

In Porto Rico 4 different kinds of cercariae occur in *Planorbis guadeloupensis*. Two are fork-tailed, two are echinostome cercariae. One of the fork-tailed cercariae has been shown experimentally by Hoffman to be the larva of *S. mansoni*. The second kind possesses eyespots and closely resembles *Dicranocercaria ocellifera* figured by Lutz from Brazil.

R. T. L.

Lambert (Robert A.) & Burke (Alice M. B.). **Studies on Schistosomiasis** (*S. mansoni*) **in Porto Rico. IV. Correlation of Clinical and Autopsy Findings with Case Reports.**—*Porto Rico Rev. of Public Health & Trop. Med.* 1928. Apr. Vol. 3. No. 10. pp. 403–415. [School of Trop. Med., Univ. of Porto Rico.]

35 new autopsies gave evidence of 20 per cent. infection with *Schistosoma mansoni* as compared with 11 per cent. out of 100 cases previously recorded. This higher incidence is attributed to the fact that the larger number of the cases came from other parts of Porto Rico outside San Juan. The authors report the clinical and autopsy findings of 4 out of the 18 positives and make some comments on the remainder. It is apparent from these notes that light infections may not give rise to any symptoms and may not affect the health at all. Only in two of the 18 cases was death undoubtedly attributable to schistosomiasis. In one case the clinical picture was that of hepatic cirrhosis. In the other the intestinal symptoms were those of a chronic infectious colitis with secondary bacterial infection as probably a major factor. Experimental hyper-infections in rabbits and monkeys give lesions which are very different from those seen in man.

R. T. L.

González Martinez (I.). **Studies on Schistosomiasis in Porto Rico.**—*Porto Rico Rev. of Public Health & Trop. Med.* 1928. May. Vol. 3. No. 11. pp. 443–457. With 8 figs. [10 refs.].

Lambert (Robert A.) & Hoffman (William A.). **"Studies on Schistosomiasis in Porto Rico." A Reply.**—*Ibid.* pp. 458–459.

These are notes dealing with questions of priority. Lambert and Hoffman recognize that Martinez was the first to observe schistosomiasis in Porto Rico. They point out that the co-existence of *S. mansoni* and *Planorbis guadeloupensis* does not necessarily establish

that the latter is carrier of the former. Martinez states that Hoffman's map of the distribution of bilharzia infestations of planorbis is erroneous as far as the region of Mayagüez is concerned. He also maintains that the view expressed by Lambert that the lesions produced by *S. mansoni* are due essentially to the irritative action of the ova cannot be sustained. [An editorial note explains that the departure from the policy of furnishing scientific information in the most objective manner possible is not to be taken as a precedent.]

R. T. L.

HARLÉ (G.). La bilharziose intestinale sur les Hauts Plateaux à Madagascar. [**Rectal Schistosomiasis in the Uplands of Madagascar.**] —*Bull. Soc. Path. Exot.* 1928. May 9. Vol. 21. No. 5. pp. 380–382. [2 refs.]

A new endemic focus for *Schistosoma mansoni* has been discovered at Ambositra, in the uplands of Madagascar. Specimens of *Planorbis madagascariensis* were found to be naturally infected with two species of cercaria, one large with simple tail, the other small with bifid tail and absence of pharyngeal bulb. It is supposed that the latter is the cercaria of *S. mansoni*.

R. T. L.

LEGER (Marcel). Au sujet de la note de G. HASLÉ sur la bilharziose intestinale à Madagascar. [**Harlé's Note on Rectal Schistosomiasis in Madagascar.**]—*Bull. Soc. Path. Exot.* 1928. June 13. Vol. 21. No. 6. pp. 435–436.

A propos of HARLÉ's note, attention is drawn to a publication by LEGER and PRINGAULT (1921) on "Intestinal Helminthiasis and Bilharziasis due to *Schistosoma mansoni* in Madagascar" in which the provinces Ambotsitra, Fianarantsoa and Farafangana were shown to be infected with bilharziasis. No bilharzia infection was found in the uplands north of Antsirabé and Tananarive.

R. T. L.

SEVERINGHAUS (Aura Edward). **Sex Studies on** *Schistosoma japonicum.* —*Quarterly Jl. Microscop. Sci.* 1928. Apr. Vol. 71. Pt. 4. N.S. No. 284. pp. 653–702. With 60 figs. on 4 plates and 1 chart. [36 refs.] [Peking Union Med. College, Peking & Dept. of Zool., Univ., Columbia.]

In the Soochow region the incidence of natural infection of snails with *Schistosoma japonicum* is about 2 per cent. With this low incidence it was possible to plan infections of hamsters by cercariae from a single snail and to be reasonably sure that practically all the snails had been infected by a single miracidium. Exactly half the snails gave cercariae which developed into female flukes, those from the other half resulting in males. The males developing in the absence of females are normal and unretarded in growth, but the females developing in the absence of males fail to develop normally. The length is less than one-fifth the normal, the diameter is constant and less than one-quarter the normal size and the reproductive organs fail except for a blind tube representing the uterus. This state may be maintained for even 268 days, but if at any time male cercariae are introduced into the host, the immature females rapidly become normal. A study of the process of spermatogenesis substantiates the evidence obtained experimentally that sex is determined in the fertilized egg.

R. T. L.

SUDA (Kansaku). **On the Oral Infection of the** *Schistosomum japonicum* **(Preliminary Report).**—*Nagoya Jl. Med. Sci.* (continuing the *Aichi Jl. Experim. Med.*) 1927. Dec. 25. Vol. 2. No. 2. pp. 107–109. With 2 text figs.

Experimental studies on rabbits indicate that oral infection with *Schistosoma japonicum* is possible, but is much rarer than the dermal route as "the cercaria is not able to reside directly on the mucous membrane and the majority died off on the surface of the digestive tract without any resistance against the various kinds of digestive fluid." The indispensable condition of oral infection is that the cercaria must be swallowed with a large amount of water to dilute the digestive fluids. Histologically, the author has confirmed the penetration of the wall of the mouth, oesophagus, stomach and intestine by cercariae.

R. T. L.

TAKAHASHI (Shozo). **On the Cercaria of** *Schistosoma japonicum* **Katsurada.**—*Okayama-Igakkai-Zasshi* (*Zent. d. Okayama Med. Gesellsch.* 1928. July. Vol. 40. No. 7 (No. 462). German summary pp. 1381–1382. [In Japanese pp. 1349–1380. With 34 figs. on 10 plates.] [Bact. Dept., Okayama Med. Univ., Okayama.]

No dimorphism could be detected in the cercariae of *S. japonicum*. The anatomy of the cercaria has been carefully studied. A layer of diagonal muscle lies beneath the circular and longitudinal layers in the anterior half of the body wall and there are four retractor muscle bands at the anterior end of the body. There are sensory organs with delicate hair-like processes scattered over the body and tail. The "head gland" of NARABAYASHI is renamed "headsac" as it has no secretory function. In the "ciliated area" of CORT are 2 special flame cells. The opening of each poison gland has a hair brush acting apparently as a closing apparatus. The anterior 2 pairs of glands differ morphologically and microchemically from the 3 pairs of posterior glands. The head spines are not hollow and do not cap the orifice of the poison gland as FAUST supposed.

R. T. L.

MAHFUZ (A. H.). [**A Case of** *Schistosoma bovis* **in Man.**]—*Egyptian Med. Rev.* 1927. Apr. pp. 301–306. [In Arabic.]

In a case of haematuria and painful micturition 4 bodies thought to be similar to the eggs of *S. bovis* were seen by the author.

R. T. L.

VERGEER (Teunis). *Diphyllobothrium latum* **(Linn., 1758), the Broad Tapeworm of Man: Experimental Studies.**—*Jl. Amer. Med. Assoc.* 1928. Mar. 3. Vol. 90. No. 9. pp. 673–678. With 1 map in text. [9 refs.] [Dept. of Zoology & Biol. Station, Univ. of Michigan, Ann Arbor.]

It is shown that *Stizostedeon canadense-griseum*, *S. vitreum*, *Esox lucius* and *Lota maculosa* harbour the plerocercoid stages of *D. latus* in North America. The Portage Lake region in the northern peninsula of Michigan is an endemic area and contains a considerable Finnish population. The movement of fish into Lake Superior may extend the

range of the distribution of the parasite. It is to be noted that plerocercoids of other species of Dibothriocephalidae occur in *Leucichthys* spp. and in *Lota maculosa.*

R. T. L

Vergeer (Teunis). **Canadian Fish, a Source of the Broad Tapeworm of Man in the United States.**—*Jl. Amer. Med. Assoc.* 1928. May 26. Vol. 90. No. 21. pp. 1687–1688. [6 refs.] [Dept. of Zoology, Univ. of Michigan, Ann Arbor.]

In 27 yellow pike or wall-eye fish (*Stizostedeon vitreum*) from a shipment from Lake Winnipeg, Canada, 5 were found to harbour each a single plerocercoid of *D. latum.* This supports the author's previous contention that the eating of infested fish from Canada may be responsible for a large percentage of the cases found in the United States outside the known endemic areas.

R. T. L.

McGavran (Edward G.) & Songkla (Mahidol). *Diphyllobothrium latum* **in Massachusetts. A Report of Two Indigenous Cases.**—*Jl. Amer. Med. Assoc.* 1928. May 19. Vol. 90. No. 20. pp. 1607–1608. [Med. School, Harvard Univ., Boston, Mass.]

At Boston, U.S.A., the adult cases of infection with *D. latus* have all been among patients of foreign birth, but very recently two cases of unquestionable indigenous infections have been found at the children's hospital. These are thought to be the first reported cases of native infection in the state of Massachusetts and outside the immediate Great Lakes district. The families to which the patients belonged were stated to have purchased "white-fish" from nearby fish markets which derive their supplies largely from the Great Lakes region and the Ohio River.

R. T. L.

Magath (Thomas B.). **Distribution of Broad Tapeworm.** [Correspondence.]—*Jl. Amer. Med. Assoc.* 1928. May 19. Vol. 90. No. 20. p. 1650.

The author has obtained wall-eyed pike from Lake Winnipeg, Manitoba, and in a large percentage of them has found larvae which produced typical *Dibothriocephalus latus* when fed to dogs. A great proportion of these pike sold in the middle west markets come from Canadian lakes.

R. T. L.

Nicholson (Daniel). **Fish Tapeworm. Intestinal Infection in Man: the Infestation of Fish in Manitoba Lakes.**—*Canadian Med. Assoc. Jl.* 1928. July. Vol. 19. No. 1. pp. 25–33. With 9 figs. & 1 chart in text. [6 refs.]

Patients who pass large segments of *D. latus* at frequent intervals rarely have anaemia. The anaemia varies from a very slight to a most profound pernicious aplastic type. Anaemia occurs in only 1 per cent. of those affected and in patients who rarely cast segments. The Winnipeg General Hospital records show that 5 cases were treated in 1927

and ten in the period 1924–26. Most tapeworm cases are treated outside the hospital. Freezing, smoking, dry-cleaning or pickling in salt do not destroy the parasite. 5 minutes at 65° C. will kill the larvae.

R. T. L.

Lopez-Neyra (C. R.). Recherches sur le genre Dipylidium, avec description de quatre espèces nouvelles. [**The Genus Dipylidium. Four New Species.**]—*Bull. Soc. Path. Exot.* 1928. Mar. 14. Vol. 21. No. 3. pp. 239–253. With 8 text figs. [1 ref.] [Zool. & Parasit. Lab., Faculty of Pharmacy, Univ., Grenada.]

In this revision of the genus *Dipylidium* it is proposed to supplant the generic name *Diplopylidium* (Beddard 1913) by *Progynopylidium* Skriabine 1924, as the type species of the former is insufficiently described. Four new species, viz., *Progynopylidium monoophoroides*, *Dipylidium porimamillanum*, *Dipylidium carracidoi* and *Joyeuxia pasqualeiformis* are described.

R. T. L.

Bacigalupo (J.). L'évolution de l'*Hymenolepis nana*. [**Development of *H. nana*.**]—*C.R. Soc. Biol.* 1928. June 22. Vol. 99. No. 21. p. 239. [Central Military Hosp., Buenos Aires.]

The development of *Hymenolepis nana*, a parasite of man, can take place in two ways, either directly in white rats or indirectly in *Tenebrio molitor*. In Buenos Aires 5 per cent. to 10 per cent. of the children are infected and parasites are very numerous. The author thinks that once man is infected from an intermediate host, the parasites increase in number as a result of auto-infection. The term diheteromonoxeny is proposed for this type of parasite, which can equally evolve in a single host or in two.

R. T. L.

Baer (Jean G.). **On a New Species of Hymenolepis from a Monkey.**—*Jl. Parasit.* 1927. Sept. Vol. 14. No. 1. pp. 48–50. With 1 text fig. [8 refs.] Zool Inst., Univ. of Neuchâtel.]

At the conclusion of a brief description and discussion of *Hymenolepis cercopitheci* the author refers to the classification of Mayhew (1925) and expresses the opinion that the genus *Wardium* is artificial. He accepts for the present, however, the genera *Hymenolepis*, *Weinlandia* and *Wardium* as subgenera in Mayhew's classification.

R. T. L.

Momma (Kenji). **On a Case of *Hymenolepis diminuta* Rud., 1819.**—*Ann. Trop. Med. & Parasit.* 1928. June 12. Vol. 22. No. 1. pp. 1–3. [7 refs.] [Osaka Med. College, Osaka, Japan.]

————. [**On *Hymenolepis diminuta* (Rud., 1819) found Parasitic in Human Body.**]—*Tokyo Iji-Shinshi* (*Tokyo Med. News*). 1927. Dec. No. 2552. [Summarized in *Japan Med. World*. 1928. Mar. 15. Vol. 8. No. 3. p. 70.]

At Goiyo a baby 253 days after birth passed four *Hymenolepis diminuta*, each without scolex. These measured 90 mm., 40 mm., 42 mm. and 55 mm. respectively. Several cases previously recorded in Japan are cited.

R. T. L.

Cram (Eloise B.). **A Species of the Cestode Genus Bertiella in Man and the Chimpanzee in Cuba.**—*Amer. Jl. Trop. Med.* 1928. July. Vol. 8. No. 4. pp. 339–344. With 4 figs. [8 refs.] [Bureau of Animal Industry, Washington, D.C.]

*Bertiella satyri* has been reported from man by Blanchard (1913) and Chandler (1925). The present paper brings under notice a case of human infection with another species of the genus, viz. *Bertiella mucronata*. The specimens were collected by Dr. Alberto Recio of Havana, Cuba, and occurred in a young Spaniard and three African chimpanzees which had been taken to Cuba from Africa. The Spaniard had lived for the previous 10 years in Cuba, but before that had spent a year in the Canary Islands. The original record of *B. mucronata* was based on material from a howling monkey of Paraguay.

R. T. L.

Kellaway (C. H.). **Diagnostic Tests in Hydatid Disease.**—*Med. Jl. Australia.* 1927. Nov. 19. Supp. No. 13. pp. 388–392. [12 refs.]

In the very early stages of hydatid infection the only test likely to yield a reaction, in the author's opinion, is the intradermal one which may give a delayed response as well as an immediate one. At this stage there may be some eosinophilia. At a later stage with a large uncomplicated cyst having intact laminated membrane and thickened adventitia, the intradermal test holds but the fluid of the cyst is of low antigenic power and there is no eosinophilia as a rule. When the formation of daughter cysts has occurred eosinophilia may be present. There may be a reaction to the complement fixation test and often there is a high titre. The Casoni test may give only an immediate wheal, though later on both phases of the skin reaction occur. In cases of rupture or suppuration complement fixation is usually positive with a high titre of circulating antibody. The intradermal test may fail. When cure by operation or death of the parasite occurs, the amount of complement fixation may be small or nil, while the Casoni test is both immediate and delayed. The Casoni test is invaluable in early and uncomplicated cases. In cases where there are recurrences or residual cysts or in complicated cysts, the complement fixation test is of the greatest value. K. D. Fairley's simple precipitin test should be useful where laboratory facilities are not available for complement fixation.

R. T. L.

Burnet (Et.), Caillon (L.) & Brun (G.). Sur les méthodes biologiques du diagnostic du kyste hydatique. [**Biological Methods of Diagnosis of Hydatid Cyst.**]—*Arch. Inst. Pasteur de Tunis.* 1927. Sept. Vol. 16. No. 3. pp. 291–299.

The various methods of diagnosis have been studied in forty cases of hydatid and 100 controls in the native hospital (Hôpital Sadiki) of Tunis. The eosinophilia was practically the same in the two categories and appears to be an unreliable method of diagnosis in countries where helminth infections are common.

The precipitin reaction gave no positive indication either in 21 carriers or in 30 controls. This test is therefore regarded as demonstrably useless. The intradermal reaction gave a much lower proportion of reactions than that reported by other observers and nearly equalled the reactions of the controls. The reaction is neither constant nor specific. The complement fixation test was introduced by GHEDINI, elaborated by WEINBERG and confirmed by FAIRLEY. In Tunis, less favourable results have been obtained. During 1925–6 2 reactions were obtained from 22 proved carriers of cysts and two positive reactions were shown by non-carriers. A second series gave one reaction in 5 carriers and 2 reactions in 39 non-carriers. With sheep antigen similarly inconclusive results were obtained but the cases tested were too small in number for a final conclusion to be drawn.

R. T. L.

GOLDSWORTHY (Neil E.). **The Precipitation Test in Hydatid Infestation.** —*Jl. Path. & Bact.* 1928. Apr. Vol. 31. No. 2. pp. 435–436. [Dept. of Path., Univ., Cambridge.]

Experiments are described which show clearly that in the serum precipitation test for hydatid disease, attention must be paid to the principle of optimal proportions. When the antigenic content is low, it is possible to fail to detect specific antibodies in a patient's serum unless the serum is sufficiently diluted to avoid a relative excess of antibodies.

R. T. L.

LABBÉ (Marcel), LOMON & SELIGMAN. Diagnostic radiologique des kystes hydatiques intrahépatiques. [**Radiological Diagnosis of Intrahepatic Hydatid Cysts.**]—*Bull. et Mém. Soc. Méd. Hôpit. de Paris.* 1928. May 31. Year 44. 3rd Ser. Vol. 52. No. 18. pp. 884–891. With 3 text figs. [10 refs.]

Three cases are described in which hydatid invasion of the liver was diagnosed by X rays. The text is illustrated by two skiagrams and an anatomical chart.

R. T. L.

ROSS (I. Clunies). **In Vitro Tests of the Toxicity of Certain Drugs for Hydatid Scolices.**—*Australian Jl. Experim. Biol. & Med. Sci.* 1927. Dec. 16. Vol. 4. Pt. 4. pp. 283–288. With 2 text figs. [12 refs.] [Council for Scient. & Indust. Res., Vet. School, Univ., Sydney.]

As a preliminary to *in vivo* tests, the effect of certain drugs on hydatid brood capsules and scolices *in vitro* was investigated. Loss of clarity and motility on the warm stage at 39° C. with dulling of the calcareous corpuscles and hooks were taken as indications of death. Acriflavine, tartar emetic, emetine and trypan-blue were tried and proved toxic in this order. Acriflavine killed in dilutions of 1 in 1,000 in 3 hours, 1 in 10,000 in 8 hours and 1 in 100,000 in 17 hours. In trypan-blue scolices survived in a 1 in 200 solution for 16 hours. It is pointed out that these results may not apply *in vivo*, although tartar emetic is immeasurably enhanced in action *in vivo* as compared with its effect *in vitro* in aqueous solution in the treatment of bilharziasis.

R. T. L.

Dew (H. R.). **Hydatid Anaphylaxis.**—*Med. Jl. Australia.* 1927. Oct. 29 & Nov. 5. Supplements Nos. 10 & 11. pp. 319–320; 321–323. [17 refs.] [Walter & Eliza Hall Inst., Melbourne.]

The author states that even in simple cases the puncture of a hydatid cyst may be dangerous and even fatal from anaphylactic shock. If the erythematous stage of the Casoni reaction is very evident there is danger of anaphylactic symptoms following the absorption of fluid at an operation, while the risk is slight if only a wheal is produced, or the second stage is a mild reaction. Owing to the abolition of the anaphylactic state by general anaesthesia, grave symptoms rarely if ever occur at operation, even if much hydatid fluid is spilled into the wound. Delayed symptoms may occur afterwards and careful packing and rapid removal of the hydatid fluid is essential.

R. T. L.

Kellaway (C. H.). **Hydatid Fluid as an Anaphylactic Antigen.**—*Jl. Path. & Bact.* 1928. Apr. Vol. 31. No. 2. pp. 141–156. With 4 text figs. [13 refs.] [Walter & Eliza Hall Inst., Melbourne.]

In earlier work Kellaway, Bryce and Williams (1924) used the isolated uterus of the virgin guineapig to test the antigenic and combining powers of hydatid fluid and of various extracts of scolices. The difficulties occurred from the presence of the small amount of proteins present in hydatid fluid and by the frequent presence of substances which stimulate plain muscle and also by the fact that the isolated uteri of guineapigs sensitized with hydatid fluid may react maximally four or five times in succession before becoming desensitized. Most of these difficulties have now been overcome and it is shown that host serum proteins are present in hydatid fluid as well as other substances which can act as anaphylactic antigens and are probably proteins of parasitic origin.

R. T. L.

Cauchemez. La cysticercose bovine et le taeniasis humain en Syrie. [**Bovine Cysticercosis and Human Taeniasis in Syria.**]—*Bull. Acad. Vét. de France.* Paris. 1928. Mar. Vol. 1. pp. 77–80.

The Trasbot Prize having been awarded to a paper on cysticercosis and human taeniasis in Syria by the Académie Vétérinaire de France, the referee M. Cauchemez has given a brief summary of its contents. The author of the essay is not yet disclosed. Syria is apparently heavily infested for 13·85 per cent. of the cattle in the region of Aleppo and 16·6 per cent. around Homs are infested with cysticercosis. In the northern part of Syria one-third of the population harbour *Taenia saginata*. The extent of the infection is attributed to the coprophagous habits of the cattle, to the absence of suitable latrines and the placing of these over water courses.

R. T. L.

Dévé (F.). Sur le développement des ortho-scolex échinococciques. [**Development of the Ortho-scolex of Hydatid Cysts.**]—*C.R. Soc. Biol.* 1928. Jan. 13. Vol. 98. No. 1. pp. 16–18. With 5 text figs. [2 refs.]

Criticizing Dew's recent description of the development of the scolex in hydatid cysts Dévé remarks that this reproduces in the main the

scheme of development as interpreted by LEUCKART and illustrated schematically by BLANCHARD. It represents however, an abnormal condition. In fact, the ortho-scolex develops as originally described by WAGENER.

R. T. L.

DÉVÉ (F.) Scoliciculture hydatique en sac de collodion et *in vitro*.—[**Cultivation of Hydatic Scolices.**]—*C.R. Soc. Biol.* 1928. May 4. Vol. 98. No. 14. pp. 1176–1177. [5 refs.] [Bact. Lab., School of Med., Rouen.]

By using a mixture composed of equal parts of hydatid fluid and human ascitic fluid kept at 37° C. for 43 days, without renewal of the medium, the author has now succeeded in cultivating test tube echinococcus scolices into veritable hydatid microvesicles with thick cuticularized walls. He was successful also in cultivating scolices into opaline hydatid vesicles of relatively large size in 79 days in collodion capsules inserted into the peritoneal cavity of rabbits.

R. T. L.

DÉVÉ (F.) & LACROIX (A.). Inoculations échinococciques dans la chambre antérieure de l'oeil du lapin. [**Inoculation of Hydatid in the Anterior Chamber of the Rabbit's Eye.**]—*C.R. Soc. Biol.* 1927. Oct. 21. Vol. 97. No. 27. pp. 1054–1055.

An account is given of the successful growth of hydatid after injection experimentally into the anterior chamber of the eye of the rabbit. No such infection is known to occur naturally. It is shown that the development of the hydatid cyst in the eye, even in contact with the lens, does not necessarily induce cataract directly by irritation or by the toxic effect of the hydatid fluid, as had been maintained by DEMARIA.

R. T. L.

DÉVÉ (F.). Essai de vaccination anti-échinococcique par le sable hydatique tyndallisé. [**Attempt to vaccinate against Hydatid by Sterilized Hydatid Sand.**]—*C.R. Soc. Biol.* 1927. Oct. 28. Vol. 97. No. 28. pp. 1130–1131. [2 refs.]

Attempts to vaccinate rabbits against hydatid were made but proved unsuccessful.

R. T. L.

DÉVÉ (F.). & ROLLAND (P.) Echinococcose expérimentale du tibia. Etude histologique. [**Experimental Echinococcosis of the Tibia. Histology.**]—*C.R. Soc. Biol.* 1927. Oct. 28. Vol. 97. No. 28. pp. 1132–1133. [2 refs.]

Experimental inoculation of the tibia of a rabbit has enabled the authors to confirm the various anatomo-pathological and pathogenic details of which previous description has been given.

R. T. L.

Aitken (C. J. Hill). **A Case of Somatic Taeniasis.** [Memoranda.]—*Brit. Med. Jl.* 1928. June 2. pp. 943–944.

An interesting clinical history of a case of *Cysticercus cellulosae* with mental symptoms.

R. T. L.

Pearce (T. Vibert). **Somatic Taeniasis.** [Memoranda.]—*Brit. Med. Jl.* 1928. Sept. 8. p. 442.

A case similar to that reported by Aitken [see this *Bulletin* above] occurred in St. Giles' Hospital in 1927. In the army in India in 1920 after an attack diagnosed as malaria epileptic fits occurred at first weekly, but later at two monthly intervals. When under observation in hospital, a nodule on the scalp was noticed and others elsewhere. On excision one proved to be a cyst containing hooklets. The blood showed a 3 per cent. eosinophile count. The Wassermann reaction was negative.

R. T. L.

Castellano (Temistocles) & Orgaz (Jorge). Sobre un caso de quiste hidatidico pulmonar y probable hidatidosis cardíaca. [**Hydatid of Lung and, probably, of the Heart.**]—*Prensa Méd. Argentina.* 1928. July 20. Vol. 15. No. 5. pp. 209–217. With 11 text figs. [6 refs.]

The patient was an Argentine, 23 years old. Eight months prior to coming to hospital he began to spit blood in the mornings, though he felt quite well. This continued, and later he suffered from dyspnoea on movement and slight vertigo. He had not lost weight. X-rays showed a shadow, the size of a small orange, in the left lung, at the level of the fourth and fifth intercostal spaces, and another smaller swelling of the left lateral aspect of the left ventricle. The auricular beat was 80 per minute, the ventricular 40, both regularly spaced. He had had venereal disease, but the Wassermann reaction was negative. Complement fixation test for hydatid gave + + +, and the Casoni intradermal test a strong positive also. He remained in hospital for six months, but, except for a reduction in the haemoptysis, the signs and symptoms underwent no change. His general health remained good.

H. Harold Scott.

Fonseca (Aureliano). Cysticercose ocular sub-conjunctival. [**Sub-conjunctival Cysticercosis.**]—*Brasil-Medico.* 1928. May 12. Vol. 42. No. 19. pp. 517–518.

The sixth case of subconjunctival cysticercosis from Brazil is recorded. An examination of the faeces indicated that whipworms, hookworms and *Hymenolepis nana* were present. No information was obtained pointing to infection with Taenia, although of 12 cases cited by Dr. Nicolino in his thesis, 7 were carriers.

R. T. L.

Loeper (M.) & Garcin (R.). Sixième cas français et probablement artésien d'échinococcose alvéolaire du foie. [**Sixth French Case of Alveolar Echinococcosis of Liver.**]—*Bull. et Mém. Soc. Méd. Hôpit. de Paris.* 1927. July 28. Year 43. 3rd Ser. Vol. 51. No. 26. pp. 1230–1238. With 3 text figs. [6 refs.]

Alveolar cyst of the liver is very rare in France. The authors report the sixth case known in man there. The patient died of pneumonia and a detailed account of the post-mortem findings is given with a striking illustration of the infected liver.

R. T. L.

Takaishi (Takeo). [**Digestive Experiment with** *Cysticercus fasciolaris*, **together with a Notice on the Frequency of Parasitism and the Histological Findings of the Surrounding Liver.**]—*Tokyo Iji-Shinshi* (*Tokyo Med. News*). 1927. Aug. No. 2535. [Summarized in *Japan Med. World.* 1928. Jan. 15. Vol. 8. No. 1. p. 14.]

A mixture containing 0·4 per cent. HCl and 1 per cent. pepsin digests *Cysticercus fasciolaris* and makes the egress of the larva easy. In man and animals it has been proved that *C. fasciolaris* is easily hatched in the stomach. The paper [in Japanese] deals also with the histological changes in the liver following invasion by these larvae.

R. T. L.

Fortier (L. A.) & Gately (T. T.). **Encysted Intramuscular Parasites.**—*Southern Med. Jl.* 1928. Mar. Vol. 21. No. 3. pp. 190–192. With 3 text figs. [6 refs.]

Two skiagrams are given illustrating a case of generalized infection with cysticerci which have become calcified. The parasite was afterwards examined by Dr. M. Couret and identified as *C. cellulosae*. The faeces were negative for ova, but as a young girl the patient had been treated in Louisiana for tapeworm.

R. T. L.

Poisson (A.) & Randiambelona. Note sur la cysticercose bovine à Madagascar. [**Bovine Cysticercosis in Madagascar.**]—*Bull. Soc. Path. Exot.* 1928. Mar. 14. Vol. 21. No. 3. pp. 272–274.

*Cysticercus bovis* is fairly prevalent in the west and south west regions of Madagascar. In many cases calcification occurs. The scolex resembles that described under the name *T. africana* von Linstow 1900 *tonkinensis* Railliet and Henry 1905.

R. T. L.

Tsuyuki (Kan). [**Experimental Studies on the Route of Invasion of** *Sparganum mansoni* **in the Host's Body.**]—*Aichi Igakkwai Zasshi* (*Jl. of Aichi Med. Soc.*) 1927. June. Vol. 34. No. 7. [Summarized in *Japan Med. World.* 1928. Feb. 15. Vol. 8. No. 2. p. 44.]

*Sparganum mansoni* were seen experimentally to enter the anus and vagina of frogs, guineapigs and white rats and subsequently to invade the hosts. This observation may have some bearing on natural invasion and problems of prevention.

R. T. L.

Brown (H. W.). **A Quantitative Study of the Influence of Oxygen and Temperature on the Embryonic Development of the Eggs of the Pig Ascarid** (*Ascaris suum* **Goeze).**—*Jl. Parasit.* 1928. Mar. Vol. 14. No. 3. pp. 141–160. With 8 graphs. [8 refs.] [School of Hygiene & Public Health, Johns Hopkins Univ., Baltimore, Md.]

Certain phases in the general problem of the effects of oxygen and temperature on the different stages of development of Ascaris eggs have been carefully studied and it has been shown that some of the prevailing conceptions on the oxygen utilization by Ascaris eggs are not well founded. Supersaturation of water with oxygen does not, in fact,

hasten egg development. With *Ascaris suum* eggs it has been found that development is very regular at both 21° C. and 30° C. in media saturated with atmospheric oxygen (approximately 6·4 cc. and 5·2 cc. of oxygen per litre respectively). Development is two and a half times as rapid at 30° C. as at 21° C. Each stage of development is hastened by this rise in temperature. No one stage consumes more oxygen than another. The lower consumption at 21° C. is due to the slower development. A single Ascaris egg consumes about 0·0000025 cc. of oxygen during its development. Eggs can completely exhaust oxygen from their culture medium. Embryonic development proceeds normally in media deprived of as much as one half of the oxygen found in water saturated with atmospheric oxygen at 30° C. Development is retarded about 30 per cent. in media with 1·3 to 1·8 cc. of oxygen per litre and 50 per cent. in media with 1·1 cc. at 23° C.

Oxygen pressures do not hasten development and when sufficiently great may be lethal to the early stages.

R. T. L.

Caldwell (Fred C.) & Caldwell (Elfreda L.). **Preliminary Report on Observations on the Development of Ova of Pig and Human Ascaris under Natural Conditions, and Studies of Factors influencing Development.**—*Jl. Parasit.* 1928. June. Vol. 14. No. 4. pp. 254–260. [5 refs.] [Field Research Lab., Internat. Health Division, Rockefeller Foundation, Andalusia. Alabama.]

A method has been devised by which it is possible to isolate Ascaris eggs from the soil for quantitative studies. Antiformin solution is followed by sugar of high specific gravity which floats the eggs. These are removed from the surface by a small vial. The influence of sunlight, heat, drying, moisture, low temperature and individual variations was observed. The ova of Ascaris in pigs and in man show variations in development and resistance to heat, which suggests that there is a biological difference between them. Desiccation is the greatest lethal factor. Hence temperature, humidity, plant and animal life which tend to hasten or retard drying are of importance in the epidemiology of ascariasis where soil pollution is present. High temperatures may be offset by specially favourable conditions in the shade.

R. T. L.

Smirnov (G.) & Glasunov (M.). **On Blood Changes of Guinea-Pigs after First and Repeated Invasion with Ascaris Larvae. (Experimental Study.)**—*Rev. Microbiol. et Epidémiol.* 1928. Jan. Vol. 7. No. 1. English summary pp. 141–142. [In Russian pp. 69–93. With 18 text figs. Numerous refs.]

After invasion with ascaris larvae the curve of erythrocytes descends constantly and the maximum fall is reached on the 10–14th day. The erythropenia attains 43 per cent. of its initial figure. The quantity of haemoglobin decreases from 5 to 60 per cent. The anaemia is the type of oligochromemia with a lowered colour index. These changes follow the loss of blood due to haemorrhages in the lungs. From the 4th to the 6th day the leucocytosis increases, attaining to 25–30,000 at the 7th to 10th day of the experiment. There is a progressive fall of

lymphocytes. There is constantly an eosinophilia which reaches a maximum on the 10th to 14th day. Only after repeated invasions does the liver show numerous encapsulated larvae.

R. T. L.

MARTIN (H. M.). [**Studies on the "Ascaris lumbricoides."**]—*Agric. Exp. St. Nebraska.* Bull. 37. 1926. Dec. pp. 1–78. [Summarized in *Bull. Inst. Pasteur.* 1928. July 31. Vol. 26. No. 14. pp. 658–659.]

The resistance which pigs develop to ascaris infection is due to age, not to acquired immunity. Experiments show that the pig cannot be infected with ascaris eggs from human sources and there appears to be little doubt that the *Ascaris lumbricoides* of man and *Ascaris suilla* of the pig are physiologically distinct, though morphologically indistinguishable. The eggs become embryonated in 10 days at 31°–34° C. while at —5° C. to + 10° C. in a dry medium they can survive for more than 2 years and in damp for more than 4 years, when they can induce pulmonary symptoms in a guineapig.

R. T. L.

RICO (J. Toscano). L'action de la naphtaline et de quelques-uns de ses dérivés sur l'*Ascaris lumbricoides*. [**Action of Naphthalene and Some of its Derivatives on** *A. lumbricoides*.]—*C.R. Soc. Biol.* 1927. Oct. 13. Vol. 97. No. 26. pp. 880–883. With 1 text fig. [11 refs.] [Pharmacol. & Therap. Inst., Faculty of Med., Lisbon.]

Using as the immersion fluid Rhode-Saito's liquid (pH 6·4 at 37° C.) to which 2 grams per 100 of ox bile has been added to increase the solubility of the drugs tested, the author has examined the effect of naphthalene, bromonaphthalene, and other derivatives, on the activity of *Ascaris lumbricoides* in vitro.

R. T. L.

MANALANG (C.). **Ascariasis: Relation between the Number of Ova per Gram of Formed Stool and the Number of Female Worms harbored by the Host.**—*Philippine Jl. Sci.* 1928. Jan. Vol. 35. No. 1. pp. 23–29. [2 refs.] [Philippine Health Service, Manila.]

Ascaris egg counts were made on 11 clinical cases and 11 autopsies. The clinical cases showed unreasonable discrepancies between pre-treatment and post-treatment counts in some cases. The egg factor per gram of stool, "formed basis" per female was about 1,420. In 6 cases with intestinal pathology, the average was 1,460. Mechanical and biological factors are held to be the probable reason for the variation in cases. 9 tables accompany the text.

R. T. L.

IIO (Arata). [**Studies on the Body Fluid of the Human Ascaris.**]—*Kyoto Igakkwai Zasshi* (*Jl. of Kyoto Med. Soc.*) 1927. Apr. Vol. 24. No. 4. [Summarized in *Japan Med. World.* 1928. Jan. 15. Vol. 8. No. 1. p. 19.]

The body cavity fluid of *Ascaris lumbricoides* from man is highly toxic, inducing vomiting, diarrhoea, sometimes bloody stool, dyspnoea, cardiac disturbances, fainting and spasm. 0·5 cc. per kilogram of body weight will kill the dog and the guineapig, while 1·0 cc. per kilo will kill the rabbit. P.M. findings show congestion of the viscera, especially of the kidneys and intestine, emphysema of the lungs, haemorrhage in the thymus, etc. The fresh fluid, which is slightly acid with a pH of 6–7, has no haemolytic action, but an old specimen has marked haemolytic power and retards blood coagulation.

R. T. L.

Nishimura (Keisuke). [**On the Antitripsic Power of the Extracts of the Ascaris.**]—*Chosen Igakkwai Zasshi (Jl. Korean Med. Soc.)* 1928. Jan. No. 84. [Summarized in *Japan Med. World.* 1928. Apr. 15. Vol. 8. No. 4. pp. 100–101.]

Glycerin-water extracts and ether extracts of ascaris have a marked antitripsic action. Alcoholic extracts have no action.

R. T. L.

Dutta (Jagadish Chandra). **Ascaris Infection simulating Bright's Disease.** —*Indian Med. Gaz.* 1928. June. Vol. 63. No. 6. p. 330. [Raja Alli Tea Estate, Assam.]

A woman with general anasarca, dypsnoea, no appetite and a continuous feeling of heaviness in the abdomen, was at first treated as a case of Bright's disease. Treated with oil of chenopodium and carbon tetrachloride mixture, followed by salt, she passed in five days 500 roundworms, and quickly became fit and well.

R. T. L.

Wyss (Hans). Chirurgische Komplikationen der Askaridiasis. [**Surgical Complications of Ascariasis.**]—*Schweiz. Med. Woch.* 1928. May 19. Vol. 58. No. 20. pp. 502–506. With 3 text figs. [33 refs.] [Cantonal Hosp., Aarau.]

Clinical details are given of two surgical cases complicated by the presence of ascarids. In one case there was volvulus of the ileum, with perforation of the infarcted bowel and escape of ascarids into the peritoneal cavity. In the other, the worms were found in the peritoneal cavity following perforation of a gangrenous bowel wall.

R. T. L.

Hamid (M.). [**Grave Symptoms caused by** *Ascaris lumbricoides.*]—*Egyptian Med. Rev.* 1927. Apr. No. 4. pp. 266–270. [In Arabic.]

The clinical records are given of three cases. In the first there was severe colic, nausea and shock. The abdomen was typanitic, temperature 36° C., pulse 52. Laparotomy disclosed the fact that a loop of the ileum was tightly packed with Ascarids. One hundred and one worms were removed and 14 others were passed later, after the administration of santonin. In the second case there was an inguinal hernia. When the clips were removed after operation, five ascarids were found in the wound and a few days later there were six more. In the last case laparotomy was performed for appendicitis. The appendix was normal, however. There was a tense swelling in the ileocaecal region due to worms. These were massaged into the caecum and a great many were passed when the patient subsequently received chenopodium.

R. T. L.

Sivasambandan (R.). **Notes on Two Interesting Cases.** —*Malayan Med. Jl.* 1928. Mar. Vol. 3. No. 1. p. 64.

Of these two cases the first is a case of beta-naphthol poisoning caused, it is suggested, by the surreptitious use of alcohol. The second case was one of perforation of the oesophagus by *Ascaris lumbricoides.* At post mortem two large roundworms were found alive in the left pleural sac. They had escaped from the oesophagus just above the diaphragm through an opening 1 cm. long vertically and ½ cm. broad transversely.

R. T. L.

SANDGROUND (J. H.). **Some Studies on Susceptibility, Resistance, and Acquired Immunity to Infection with** *Strongyloides stercoralis* **(Nematoda) in Dogs and Cats.**—*Amer. Jl. Hyg.* 1928. July. Vol. 8. No. 4. pp. 507–538. [16 refs.] [Harvard Med. School, Boston, Mass.]

*Strongyloides stercoralis* from human cases has been successfully transmitted to dogs and cats. Cats are the more susceptible, and there are degrees of individual susceptibility within the species. In dogs the duration is longer than in cats. Infections are eliminated spontaneously and the animals are refractory to reinfection. In dogs this acquired immunity lasts more than six months. The susceptibility of infected animals to super-infection is lost after a few weeks, and the animal becomes refractory to super-infection before the primary infection has entirely disappeared. This immunity differs from natural immunity and is specific. In immune animals it would appear that the larvae actually penetrate the skin and pass through the blood stream and lungs, reaching the intestine, but they are overcome before attaining sexual maturity. Blood from immune animals does not confer immunity. Eosinophilia plays little part in the mechanism of immunity. Previous infection with *Strongyloides fulleborni* did not prevent subsequent infection with *Strongyloides stercoralis*.

R. T. L.

NISHIGORI (M.). **The Factors which influence the External Development of** *Strongyloides stercoralis* **and on Autoinfection with this Parasite.**—*Taiwan Igakkai Zasshi (Jl. Med. Assoc. Formosa).* 1928. Apr. No. 277. English summary pp. 31–33. [In Japanese. With 33 figs. on 3 plates.] [Govt. Med. College, Taihoku, Formosa, Japan.]

The conditions which produce sexually mature free-living forms in *Strongyloides stercoralis* are sufficient nutriment and humidity at a temperature of 28–34° C. The reaction of the culture medium must be neutral, or slightly alkaline and the supply of oxygen must be sufficient. When the larvae evacuated in the faeces are kept under unsuitable conditions, a great number become transformed directly into filariform larvae. They may even do so before evacuation, and penetrating the mucosa of the large intestine produce auto-infection. The direct and indirect filariform larvae are readily distinguishable. The latter are about 0·016 mm. longer than the former and the genital premordium is smaller, consisting of only 3 to 4 cells as compared with 12 to 22 cells in the former. Constipation is the most important factor in auto-infection. If young larvae remain in the alimentary canal for more than 24 hours they will change directly into filariform larvae and penetrate the mucosa. The same changes may occur when the bowel contents are unsuitable for the life of the larvae. If the mucosa of the large intestine is ulcerated, even young larvae may penetrate into the intestinal wall and after direct metamorphosis produce auto-infection. The author describes the four main routes taken by the larvae in auto-infection. Unless the infection is exceptionally heavy it does not seriously affect the host, but in auto-infection ulcers of the mucous membrane, chronic peritonitis, pleuritis, bronchitis and even parasitic pneumonia may result. [Based on abstract of Japanese.]

R. T. L.

Bachman (George W.). **An Intradermal Reaction in Experimental Trichiniasis. Preliminary Report.**—*Jl. Preventive Med.* 1928. Mar. Vol. 2. No. 2. pp. 169–173. With 1 text fig. [1 ref.] [Dept. Hyg. & Bact., Univ., Chicago.]

A local skin reaction, specific in character, followed the intracutaneous injection of Trichinella protein in twelve trichinosed rabbits. The typical skin reactions appeared as early as the second day after feeding with trichinosed meat. The method of preparing the antigen has already been described in the *Journal of Preventive Medicine*, 1928, Vol. 2, p. 35 [*ante*, p. 470].

R. T. L.

Manalang (C.). **Trichuriasis: Relation between the Number of Ova Per Gram of Formed Stool and the Number of Female Worms harbored by the Host.**—*Philippine Jl. Sci.* 1928. Jan. Vol. 35. No. 1. pp. 11–22. [1 ref.] [Philippine Health Service, Manila.]

The whipworm eggs were carefully counted in 4 clinical cases and 18 fresh cadavers. In the clinical cases there were unreasonable variations between the pre-treatment and post-treatment counts. The Trichuris egg "factor" was found to be about 310 ova per gram of "random" stool, formed basis, per female worm. The variations observed in the author's counts appeared to be influenced by mechanical and biological factors. A large number of tabular statements clarify the text.

R. T. L.

Troisier (P.), Deschiens (R.), Limousin (H.) & Delorme (M.). L'infestation du chimpanzé par un nématode du genre *Hepaticola*. [**Infestation of Chimpanzee with the Nematode Hepaticola.**]—*Bull. Soc. Path. Exot.* 1928. Mar. 14. Vol 21. No. 3. pp. 221–222.

A naturally acquired infection of the liver with eggs of Hepaticola is recorded in an anthropoid ape from Kindia in French West Africa. The only known species *H. hepatica* is normally a parasite of rats and mice, but has been found in rabbit and hare and, on one occasion, in man.

R. T. L.

de Carvalho (Onelio). Frequencia do "Enterobius vermiculares" nas creanças do Districto Federal. [**Frequency of** *E. vermicularis* **in Children in Brazil.**]—*Sciencia Med.* 1928. Mar. Vol. 6. No. 3. pp. 117–118.

Of 130 children especially examined for *Oxyuris vermicularis* no less than 29, i.e., 22·4 per cent., were found infected. The author draws attention to the very varied percentages reported by different workers.

R. T. L.

Cluver (Eustace). **Ankylostomiasis: Occurrence and Possibility of Spread in the Union of South Africa.**—*Jl. Med. Assoc. South Africa.* 1928. June 23. Vol. 2. No. 12. pp. 319–323.

Widespread anaemia and low mentality among children in Northern Transvaal suggested a prevalence of hookworm infection which laboratory examinations of European children have so far failed to confirm. Routine examinations have shown that 43 per cent. of Portuguese East African native employees and 13·4 per cent. of British South

African employees are carriers. It appears that infestation occurs elsewhere in the Union as 27 of the South African natives had not been employed on the mine for longer than 3 months. The European cases discovered on the Witwatersrand all appear to have been infested in the mines. Common salt is used once a week on latrine floors and other places likely to be infected, and walls, roofs and seat are washed with a 20 per cent. solution. Buckets have ½ in. layer of salt on bottom and top prior to removal from the latrine. The soil in and about latrines was found to be entirely free from larvae eight days after treatment although previously it swarmed with larvae.

R. T. L.

Orenstein (A. J.). **The Diagnosis and Treatment of Ankylostomiasis.** —*Jl. Med. Assoc. South Africa.* 1928. June 23. Vol. 2. No. 12. pp. 323–324.

As persons infected with hookworm have been recently noticed among new arrivals at the Witwatersrand mines from Zululand, the Transkei, and Basutoland the author has put together these notes on diagnosis and treatment of the disease. Although it was recognized among Indian coolies in Natal in 1904, and on the Witwatersrand in 1906, there appears to have been no need hitherto for the medical profession to concern itself much about the disease.

R. T. L.

Espié (A.) & Duthu (L.). Contribution à l'étude de l'ankylostomiase dans le sud tunisien. [**Ankylostomiasis in South Tunis.**]—*Arch. Inst. Pasteur de Tunis.* 1928. Mar. Vol. 17. No. 1. pp. 79–82. [1 ref.]

An examination of the stools of 200 persons from the Oasis of Gafsa showed that 97·5 per cent. harboured parasites. The species incidence in the 200 persons was as follows : Ascaris 162, Trichuris 158, Ancylostoma 51, Trichostrongylus 16, Hymenolepis 4, Oxyuris 2, *Strongyloides stercoralis* 1, Taenia 1. This enquiry establishes definitely the occurrence of hookworm in the Oasis of Gafsa. This is not surprising in view of the considerable amount of traffic between Gafsa and Tozeur, a heavily infected centre.

R. T. L.

Philip (C. R.) & Maclennan (N. M.). **Personal Experiences of Hookworm Infection.**—*Kenya & East African Med. Jl.* 1928. June. Vol. 5. No. 3. pp. 93–96.

Two medical officers concerned in the hookworm campaign in the Digo district became infected on two successive occasions. The actual method of infection is unknown but the district is grossly infected and 95 per cent. of the population are carriers. The symptoms were similar in the two cases, viz., exhaustion with early sleepiness, dyspnoea, pyrexial attacks, constipation with flatulence and irregularity, vague symptoms of discomfort in the epigastrium, mental irritability with inability to concentrate, praecordial pain and pain over the apex of the right lung. Treatment cut short the disease before many physical

signs became established, but there were anaemia, heart murmurs, pyorrhoea, enlargement of the heart, puffiness of the features, increased vocal resonance and fremitus at the right apex and chronic cachexia. There was a marked eosinophilia. Immediately after treatment the health rapidly improved regaining the normal in about a week's time, when the eosinophil count gave 6 per cent. Reinfection took place some weeks after treatment and the eosinophils rose from 1 per cent. to 14 per cent. in a few days. The symptoms were not so severe.

R. T. L.

Quemener (E.). Contributions à l'étude de la symptomatologie de l'ankylostomiase. [**Symptomatology of Ankylostomiasis.**]—*Rev. Méd. et Hyg. Trop.* 1928. Mar.–Apr. Vol. 20. No. 2. pp. 36–38.

Eighty per cent. of those affected with hookworm can be detected clinically by the expert. The author divides the symptoms into *Principal*, viz.: (*a*) pain in the epigastrium ; (*b*) diarrhoea ; (*c*) reduction in the quantity of urine ; (*d*) earthy yellowish hue ; (*e*) anaemia. *Secondary* : (*a*) puffiness of the face, oedema of the lower limbs, abdomen and in advanced cases ascites, hydrothorax, hydropericardium ; (*b*) hypertrophy of liver and spleen, frequently jaundice ; (*c*) palpitations ; (*d*) pleuro-pneumonia ; (*e*) renal symptoms ; (*f*) anorexia, vertigo and psychasthenia.

There is no undue temperature except where the lung or liver is involved. Differential diagnosis includes a consideration of nephritis, cancer, dysentery, and the parasitic infections, tuberculosis, syphilis, malaria and especially beriberi.

R. T. L.

Kobayashi (K.). **Morphological Differences among Mature Larvae of *Necator americanus* and Three Other Species of Ankylostomidae.**—*Taiwan Igakkai Zasshi* (*Jl. Med. Assoc. Formosa*). 1928. Feb. No. 275. English summary pp. 16–18. [In Japanese. With 2 plates & 2 text figs.] [Govt. Med. College, Taihoku, Formosa.]

Morphological differences exist between mature larvae of *Necator americanus* and those of three other species of Ancylostomidae. During the first 3 days after encystment the larva of *A. duodenale* is much more active than that of *N. americanus*. The body of the *A. duodenale* larva is the bigger. In Necator the transverse striations of the cuticle of the larvae are the more distinct. The head of an *A. duodenale* larva is large and flat, that of necator larva is small and round. A spear is seen in the mouth and anterior end of the oesophagus. In Necator larvae with a high power the mouth cavity is filled with highly refractile hyaline substance in the form of a spear with a broad bifracted anterior end and an enclosed narrow line, whereas in Ancylostoma there are two narrow longitudinal lines separated by a wide space.

The genital anlage is on the anterior half of the intestine in Necator ; in the posterior half in Ancylostoma. The tail of Ancylostoma larvae is longer and slenderer than that of Necator larvae and is pointed in Necator, blunt in Ancylostoma. Small morphological differences are noted also during the periods 3–15 days and 3 to 4 weeks after encystment. The larvae of the three species *A. duodenale*, *A. caninum* and

*A. braziliense* show considerable difference in shape and size of the tail. The transverse striations of the cuticle are most marked in *A. braziliense* while those in *A. caninum* are almost indistinguishable.

R. T. L.

Schuurmans Stekhoven Jr. (J. H.). **The Nemas Anchylostoma and Necator. II. New Researches on the Larvae of** *Anchylostoma duodenale* **Dub. and** *Necator americanus* **Stiles.**—*Proc. Roy. Acad. Amsterdam.* 1927. Vol. 30. No. 5. pp. 581–593. With 21 text figs. [4 refs.]

The present investigations deal with the morphology of the third stage, ensheathed larva, of Ancylostoma and Necator. The larvae were isolated from soil cultures by using wet hairy tomato seeds on which they crept and thus could be transported easily on to a slide. The main differences lie in the structure of the head and in the lips, papillae and amphids, in the covering of the apical end of the oesophagus, the presence or absence of the anterior eosophageal bulbus, in the structure of the posterior oesophageal bulbus, the structure of the salivary glands, in the sphincter between the oesophagus and intestine, in the structure and shape of the excretory apparatus, in the shape of tail and sheath and in the distribution of the transverse striations on the skin.

R. T. L.

Garin (Ch.), Doubrow (S.) & Mounier (H.). Quelques particularités dans l'évolution de l'ankylostomose (110 observations). [**Points in the Development of Ankylostomiasis.**]—*C. R. Soc. Biol.* 1928. Jan. 13. Vol. 98. No. 1. pp. 44–45.

This brief note states that the authors have treated 110 cases for hookworm and have collected from them 40 worms of which only three, one male and two females, were *Necator americanus*. The number of eggs varied from 4 or 5 to more than 3,000 in each preparation made by an enrichment technique based on that of Telemann. The blood changes are somewhat vaguely described.

R. T. L.

Maplestone (P. A.). **The Rate of Loss of Hookworm Eggs from Faeces.**—*Indian Med. Gaz.* 1928. June. Vol. 63. No. 6. pp. 324–326. With 1 chart in text. [4 refs.] [Calcutta School of Trop. Med., Calcutta.]

There is a fairly rapid and steadily progressive loss of hookworm eggs from the first to the sixth day in storage of faeces. During the first three or four days eggs containing larvae are often encountered while in a few cases free larvae may be seen although the majority of the eggs are still normal and undeveloped. From about the 4th day onward, definitely degenerating eggs are found. These results occurred in sealed tins free from air and in tins with a layer of air between the surface of the faeces and the lid. The tins used were identical with those with which Chandler carried out his Indian survey in 1928.

R. T. L.

Oba (T.). **On the Morphological Changes of the Blood in Infection with *Ancylostoma duodenale* and *Necator americanus*, especially on the Eosinophilia in these Cases.**—*Taiwan Igakkai Zasshi* (*Jl. Med. Assoc. Formosa*). 1928. May. No. 278. English summary p. 36. [In Japanese.] [Govt. Med. College, Taihoku, Formosa, Japan.]

A comparative study of the blood changes, especially eosinophilia, has been made in 12 experimental infections in man with larvae of Ancylostoma and Necator. In both eosinophilia is the most notable blood change. A slight eosinophilia occurs soon after infection. In the Ancylostoma cases the maximum number of eosinophile cells amounted to 29–37 per cent. of the whole leucocyte count and drops during a period of six months to 17–15 per cent. In Necator infection the maximum number of eosinophiles formed 13·2–15·4 per cent. of the total leucocytes. This decreased to 5–10 per cent.

R. T. L.

Noda (Y.). **On the Resistance of the Eggs and the Mature Larvae of *Ancylostoma duodenale* against the Halogen-Group, especially Iodine.**—*Taiwan Igakkai Zasshi* (*Jl. Med. Assoc. Formosa*). 1928. July. No. 280. English summary p. 50. [In Japanese.] [Govt. Hosp., Karenko, Japan.]

The effects of iodine, chlorine and bromine have been tested at 37° C. against the eggs and larvae of *Ancylostoma duodenale*. In iodine 0·014 per cent. they died within 20 seconds, in 0·0125 per cent. in 4 to 9 minutes. In chlorine 0·15 per cent. death was immediate and 0·1 per cent. killed in 7 minutes to 2 hours. Bromine 1 per cent. was immediately fatal and 0·75 per cent. acted in from 5 minutes to 2 hours.

R. T. L.

Herrick (C. A.). **A Quantitative Study of Infections with *Ancylostoma caninum* in Dogs.**—*Amer. Jl. Hyg.* 1928. Mar. Vol. 8. No. 2. pp. 125–157. With 2 figs. [13 refs.] [Dept. Zool., Univ., Wisconsin, and School of Hygiene & Public Health, Johns Hopkins Univ., Baltimore, Md.]

Using *Ancylostoma caninum* experimentally in dogs the author found that the important factors affecting the egg-worm ratio were: (1) age of the worms; (2) proportion of worms in copula; (3) proportion of males and females. The numbers of eggs produced increased very considerably with the age of the female worms so that in all estimates of worm numbers from egg counts the age of the worms must be considered. The average number of eggs per day is a better measure of infection than of eggs per gram. Older dogs were more resistant than young. No increase in resistance could be demonstrated in dogs previously infected when all the worms from the previous infections had been removed with anthelmintics, although in certain cases where residual infections occurred there seemed to be increased resistance to a superimposed infection.

R. T. L.

Scott (J. Allen). **An Experimental Study of the Development of *Ancylostoma caninum* in Normal and Abnormal Hosts.**—*Amer. Jl. Hyg.* 1928. Mar. Vol. 8. No. 2. pp. 158–204. With 6 text figs. [20 refs.] [School of Hygiene & Public Health, Johns Hopkins Univ., Baltimore, Md.]

The detailed study reported in this paper was made for the purpose of determining the conditions necessary for the development of *Ancylostoma caninum* in the dog. Infective larvae were administered orally to dogs, cats and rats and particular attention was given to the early stages of development. Dogs and cats become more resistant with age, but cats were never so easily infected as dogs, even when very young, and sexual maturity was attained more slowly. Rats could not be experimentally infected. By using the Baermann apparatus it was demonstrated that in each host a certain number of worms remained undeveloped and identical with the infective forms. They could be recovered from the body several weeks after administration. When again administered to other hosts they could still be infective. Evidence was obtained that after oral infection development of the worms could follow without migration through the lungs. It seems improbable, from these studies, that the chief cause of insusceptibility is the action of any lethal agent or the lack of sufficient or proper food or of a stimulating agent in the susceptible host and of an inhibiting agent in the resistance host. The combination of factors necessary for parasitism cannot yet be specified.

R. T. L.

Lane (Clayton). **A Simple Hookworm Larvicide.** [Correspondence.] —*Lancet.* 1928. May 19. p. 1043. [1 ref.]

Carozzi (L.). **The Problem of Ankylostomiasis.** [Correspondence.]—*Ibid.* June 16. p. 1251. [1 ref.]

Lane (Clayton). **Recent Knowledge of Hookworm Disease.** [Correspondence.]—*Ibid.* June 23. pp. 1301–1302.

Attention is drawn to Lambinet's early work in the Liège coal-mines, showing that 3 per cent. salt solution was the lowest concentration which prevented the development of hookworms to the infective stage. No development occurred in a stool rich in hookworm eggs when covered with salt. This simple method for the eradication of hookworm from mines was not, however, received by Lambinet's contemporaries with enthusiasm. Twenty-two years later Dr. W. O. Fischer appears to have formed the same conclusions as Lambinet as to the value of common salt.

An editorial note to the effect "that we possess no convenient resumé in a single cover of the immense mass of recent knowledge regarding hookworm disease in various parts of the world" brought a letter from Dr. Carozzi drawing attention to the Bibliography on Hookworm published by the International Health Board in 1922 and to a publication from the International Labour Office. Col. Clayton Lane shows that this is deplorably short of the admirable standard set by the League's publications—e.g., on malaria.

R. T. L.

GILL (C. A.). **A Simple Hookworm Larvicide.** [Correspondence.]—*Lancet.* 1928. July 7. p. 38.

In the Khewra Salt Mines in India the unhygienic conditions and the great heat and humidity are ideal for the spread of hookworm, but this is prevented by the presence of the salt. The author agrees that the common use of salt in mines infected by hookworm would be a simple remedy and he suggests that the use of common salt should prove equally valuable on the surface, especially in the vicinity of latrines, where the danger of infection is very great.

R. T. L.

LAMBERT (S. M.). **Mass Treatment for Hookworm Disease justifies itself.**—*Jl. Trop. Med. & Hyg.* 1928. May 15. Vol. 31. No. 10. pp. 113–115.

The history of hookworm disease in Fiji is recounted. In 1916 it was shown that 96 per cent. of 131 persons (from Suva Gaol and Rewa districts) were infected with an average of 194 worms. Intensive measures were commenced in 1917. In 1921 carbon tetrachloride treatment was introduced and in 1922 50,000 treatments had been given in Fiji. In March 1928, over three years after the last treatment, clinical hookworm disease is still rare in Fiji. Hookworm has been controlled and has been eliminated as an economic factor. It will never be eradicated until the time comes when these backward people have acquired a sanitary conscience.

R. T. L.

MARTIN (S. Haviland). **Hookworm Disease in Korea. With Special Reference to its Treatment.**—*China Med. Jl.* 1928. Mar. Vol. 42. No. 3. pp. 187–191. [5 refs.]

In Korea hookworm is second only to tuberculosis in its importance to the health of the people. Both *Ancylostoma duodenale* and *Necator americanus* occur. By the Stoll method and by counting the worms passed by 50 in-patients, the proportion of Ancylostoma to Necator was determined approximately as 2:1. All the cases were mixed infections. To remove Ascaris as well as these two species a mixture known as the "Severance hookworm mixture" was adopted. It contains 10 parts of carbon tetrachloride and one part of Ol. chenopodium. It can be given as 0·2 gm. for each year up to 15 years. Over 3 grams is not safe. It should not be repeated within a week nor given to cases of heart or kidney disease. From 312 cases treated the number of worms recovered ranged from one to 29. The author believes that in Korea a great deal of the infection is food-borne, particularly due to "kimchi" and other vegetables since almost half of his cases came from the city of Seoul and were never barefoot.

R. T. L.

BROSIUS (O. T.), PEON (I. E.) & CARROLL (R. L.). **Tetrachlorethylene in Uncinariasis. A Preliminary Report.**—*Sixteenth Ann. Rep. Med. Dept. United Fruit Company, Boston, Mass.* 1927. pp. 183–184. [1 ref.] [United Fruit Co. Hosp., Almirante, Panama.]

A preliminary note is published of the results of treatment of 24 hookworm carriers with tetrachlorethylene. All but 3 of the patients

had a single dose each of 3 cc. The reactions to the drug were as follows: Severe 2; moderate 6; mild 13; none 3. The symptoms noted were, dizziness 11; dizziness and abdominal pains or cramp 6; abdominal pains or cramp only 3; nausea 1. In one case vomiting followed the taking of the drug. The largest number of worms expelled by one individual was 615. The average was 54 per case. An average of 2 ascaris and 0·5 whipworm per case were found also. 91·7 per cent. of the series of cases were negative for ova after treatment.

R. T. L.

Leger (Marcel). Traitements comparés de ankylostomiase. [**Comparison of Treatments for Hookworm.**]—*Rev. Méd. et Hyg. Trop.* 1928. Mar.–Apr. Vol. 20. No. 2. pp. 38–40.

The cases compared in this paper were treated in French Guiana in 1917. Neither oil of chenopodium nor carbon tetrachloride were tested. A few details are given of the methods used and the results obtained with thymol, eucalyptol, niaouli, essence of turpentine, beta-naphthol and extract of male fern.

R. T. L.

Garin (Ch.), Doubrow (S.) & Mounier (H.). La résistance globulaire dans l'ankylostomose. [**Resistance of Erythrocytes in Ankylostomiasis.**]—*C.R. Soc. Biol.* 1928. May 18. Vol. 98. No. 15. pp. 1337–1338.

In eleven cases of ankylostome anaemia there were considerable variations in the number and in the haemoglobin index of the red cells but their resistance remained within normal limits.

R. T. L.

Garin (Ch.), Doubrow (S.) & Mounier. De la viviparité postvitale chez l'ankylostome. [**Viviparity in the Ankylostome.**]—*C.R. Soc. Biol.* 1928. June 8. Vol. 99. No. 19. p. 79.

Where female ankylostomes have died in the alimentary canal it is possible, so the authors suggest, that the eggs undergo development within the body and afterwards pass as rhabditiform embryos into the intestinal contents. If these became infective an internal cycle of the parasite would be possible.

R. T. L.

Hayes (T. H.). **Hookworm as a New Health Problem in St. Croix.**— *U.S. Nav. Med. Bull.* 1928. Apr. Vol. 26. No. 2. pp. 281–292.

The importation of labourers from Porto Rico where malaria and hookworm are rife into St. Croix where these diseases are of extreme rarity presents a new health problem of great importance to St. Croix. The author makes useful suggestions towards its solution.

R. T. L.

Ritchie (T. Russell). **The Control of Hookworm in a Native Community.**— *Med. Jl. Australia.* 1927. Nov. 19. Supplement No. 13. pp. 397–400.

A popular account of the work being carried out by the chief health officer in the control of hookworm in Samoa.

R. T. L.

YAMAGUCHI (Masamichi) & YAMAGUCHI (Misao). [**A Contribution to the Knowledge of Experimental Studies on the Infection Route of Ancylostoma. Results of the Re-Examination of the Per-Os Infection Experiment of Miyagawa, Yokokawa and Asada (Concluded).**]—*Tokyo Iji-Shinshi* (*Tokyo Med. News*). 1928. Mar. No. 2593. [Summarized in *Japan Med. World.* 1928. May 15. Vol. 8. No. 5. p. 134.]

Experiments show that when ankylostome larvae are administered orally they attain their full development in the intestinal tract without undergoing any other migration as others have supposed. The pulmonary route is only a means by which larvae entering the skin find their way into the intestine and is not necessarily involved in the biological or developmental processes of the parasite.

R. T. L.

MIWA (Fujio). [**On the Immunization with the Ancylostoma.**]—*Gun-I-Dan Zasshi* (*Jl. Army Med. Corps*). 1928. Jan. No. 175. [Summarized in *Japan Med. World.* 1928. May 15. Vol. 8. No. 5. p. 127.]

A saline emulsion of dog ankylostomes did not immunize dogs; 0·4 cc. of the 1 per cent. emulsion was toxic, for it killed a mouse of 10 gm. weight.

R. T. L.

MANSFIELD-ADERS (W.) **Notes on Malaria and Filariasis in the Zanzibar Protectorate.**—*Trans. Roy. Soc. Trop. Med. & Hyg.* 1927. Nov. 25. Vol. 21. No. 3. pp. 207–214. With 1 map.

Filariasis and elephantiasis are well-known infections in Zanzibar. 26·3 per cent. of 645 adult Africans showed *Microfilaria bancrofti* in the night blood. Engorged female *Culex fatigans* were captured and fed daily for 12 days on dates moistened with water. They were then dissected and the proboscis carefully examined for infective larvae. 265 out of 1,300 (*i.e.*, 20·3 per cent.) were found to be parasitized. In dissections of *Anopheles costalis* and *A. funestus* for malaria parasites larvae of *Mf. bancrofti* were noted in the thoracic muscles and proboscis.

R. T. L.

KORKE (Vishnu T.). **Observations on Filariasis in Some Areas in British India. Part II.**—*Indian Jl. Med. Res.* 1928. July. Vol. 16. No. 1. pp. 187–198. With 2 text figs. (1 map) and 1 folding plate. [2 refs.] [Central Research Inst., Kasauli, India.]

From a detailed study of the area, Korke concludes that filariasis has considerable prevalence in Bihar and Orissa and is uniformly distributed in the region, in which paddy is the main crop. The vector in the Gaya district was found to be *Culex fatigans* and in the months of February and March, 15 per cent. of these mosquitoes were found naturally infected. In the Puri township 12 per cent. of the mosquitoes were also infected, but the species of mosquito was not specifically determined.

R. T. L.

DAVIS (Nelson C.). **A Study on the Transmission of Filaria in Northern Argentina.**—*Amer. Jl. Hyg.* 1928. May. Vol. 8. No. 3. pp. 457–466. With 4 text figs. [8 refs.]

An experimental study on the transmission of *Microfilaria tucumana* (? *M. ozzardi*) practically ruled out the Hemiptera (Cimex and Triatoma)

as transmitting agents. Four mosquitoes out of 117 fed on a carrier were found infected. In each case the head and proboscis were not invaded. Two of the successes were with *Anopheles tarsimaculatus*, one with *A. albitarsis* and one with *Aëdes aegypti*. Further experiments, e.g. with Simulium, are suggested.

R. T. L.

Enzer (A. J.). **Symptoms associated with a Heavy Infection of** *Filaria perstans*.—*Kenya & East African Med. Jl.* 1928. Apr. Vol. 5. No. 1. p. 28.

Four persons from North Kavirondo, at a place where sleeping sickness is unknown, complained of persistent headaches, loss of strength and feeling of drowsiness. All had enlarged spleens, and large, soft cervical, axillary and femoral glands. Gland puncture revealed *Filaria perstans* in every slide and the centrifuged blood teemed with the parasites. No trypanosomes were found. The cerebrospinal fluid was normal. A fifth case from the lake shore presented similar conditions.

R. T. L.

Hardwicke (Charles). **Onchocerciasis in Southern Mexico.**—*Trans. Roy. Soc. Trop. Med. & Hyg.* 1928. Mar. 31. Vol. 21. No. 6. p. 495.

It is stated that Dr. José Larumbe, Director of the Military Hospital in Oaxaca has recently reported cases of onchocerciasis in isolated areas of that state. The author says "there is no doubt that the disease invaded Mexico by way of Guatemala; its course can be traced along the mountain range of the Sierra Madres, with infected areas in these mountains, from the Guatemalan frontier through the states of Chiapis, Oaxaca and Guerrero."

R. T. L.

Roussel (Botreau). Radiographie du ver de guinée (filaire de Médine) après injection intrasomatique de lipiodol. [**Radiography of the Guinea Worm after Injection of Lipiodol.**]—*Bull. Soc. Path. Exot.* 1928. Feb. 8. Vol. 21. No. 2. pp. 103–104. With 4 figs. on 2 plates.

Neither by local injections (with cocaine, formol, chloroform, etc.) nor by general chemotherapy (intravenous injections of novarsenobenzol, tartar emetic, intravenous and intramuscular injections of emetine, ingestion of stovarsol, etc.) has the author been able to treat successfully his patients suffering with guineaworm. In the course of his studies he found that the injection of lipiodol into the body cavity of the worms enabled him to obtain very clear, though not always complete, pictures of the worms in the tissues. Two very fine skiagrams illustrate the text.

R. T. L.

COUTELEN (F.). Contribution aux essais de culture *in vitro* d'embryons de filaires. [**Attempts to cultivate Filarial Embryos in Vitro.**]—*Bull. Soc. Path. Exot.* 1928. Apr. 18. Vol. 21. No. 4. pp. 316–322. [8 refs.] [Parasit Lab., Faculty of Med., Paris.]

After reviewing the recent literature on the subject the author recounts his personal investigations with *Filaria neglecta* of the frog. In Ponselle's hypotonic fluid at 18° C. the embryos survived for 12 to 15 days, but no morphological changes occurred.

R. T. L.

BAYLIS (H. A.). **Notes on Two Gordiids and a Mermithid said to have been Parasitic in Man.**—*Trans. Roy. Soc. Trop. Med. & Hyg.* 1927. Nov. 25. Vol. 21. No. 3. pp. 203–206. [5 refs.]

Two *Paragordius areolatus* v. Linstow were "passed" by a native girl in the Gold Coast. *Chordodes capensis* came from a native in British East Africa and a specimen of a *Mermis* worm was forwarded from Queensland and was stated to have been passed by a woman. The question of the actual occurrence of these, and other gordiids and mermithids, as true parasites of man is fully discussed by the author. The paper concludes with a list of the dozen records of gordian worms which have now been reported from man.

R. T. L.

BACIGALUPO (J.). *Periplaneta americana* Fahr., hote intermédiaire du *Gigantorhyncus moniliformis* Bremser, dans la république Argentine. [*P. americana* **as Intermediate Host of** *G. moniliformis* **in the Argentine.**] —*C.R. Soc. Biol.* 1927. Nov. 4. Vol. 97. No. 29. p. 1251. [2 refs.]

The author having failed with the common cockroach experimented with *Periplaneta americana* and succeeded in producing, in 3 out of 38, larvae of *Gigantorhynchus moniliformis* [the common echinorhynchus of rats and mice.]

R. T. L.

---

DE CAPUA (F.). L'echinococcosi nell' infanzia.—*Pediatria.* 1928. July 15. Vol. 36. No. 14. pp. 766–775. [31 refs.]

CASAS (Urbano). Un caso de anquilostomiasis en Navalmoral de la Mata (Caceres). —*Med. Países Cálidos.* Madrid. 1928. May. Vol. 1. No. 3. pp. 270–272. [5 refs.]

DA COSTA (S. F. Gomes). Action de quelques substances du groupe des camphres sur l'*Ascaris lumbricoides* du porc.—*C.R. Soc. Biol.* 1928. June 1. Vol. 98. No. 18. pp. 1604–1606. [4 refs.] [Pharmacol. Inst., Faculty of Med., Oporto.]

DÉVÉ (F.). Embolies hydatiques pulmonaires expérimentales.—*C.R. Soc. Biol.* 1928. May 21. Vol. 98. No. 16. pp. 1389–1391. [1 ref.]

GARRONE (Enrico). Appendicite acuta da ascaride lombricoide.—*Policlinico.* Sez. Prat. 1928. Mar. 19. Vol. 35. No. 11. pp. 493–495. [18 refs.]

MURRAY (Florence J.). Ascariasis: a Factor in Diagnosis and Treatment. —*Canadian Med. Assoc. Jl.* 1928. June. Vol. 18. No. 6. pp. 694–696.

PAVLOVSKY (A. J.), MAHIEU (A.) & DE FILIPPI (J.). Quistes hidáticos del higado abiertos en los bronquios y bilirragia hidática post-operatoria. Consideraciones clinico-quirúrgicas.—*Arch. Argentinos de enfermedades d. Aparato Digestivo y de la Nutrición.* Buenos Aires. 1928. Vol. 3. No. 5. pp. 673–712. With 16 figs. [28 refs.]

Pigoulewsky (S. W.). Sur un cas d'infestation mixte par *Opisthorcis felineus* et *Dicrocoelium lanceolatum*.—*Russian Jl. Trop. Med.* 1928. Vol. 6. No. 5. p. 325. [In Russian.]

Rebello (Silvio), da Costa (S. F. Gomes) & Rico (J. Toscano. (Sur la sensibilité de l'ankylostome à l'action de diverses substances.—*C.R. Soc. Biol.* 1928. Apr. 17. Vol. 98. No. 12. pp. 993–995. With 3 text figs. [1 ref.] [Pharm. & Therap. Inst., Faculty of Med., Lisbon.]

——, —— & ——. Action de quelques anti-helminthiques sur les cestodes, l'ascaris et l'ankylostome.—*C.R. Soc. Biol.* 1928. Apr. 17. Vol. 98. No. 12. pp. 995–997. [Pharm. & Therap. Inst., Faculty of Med., Lisbon.]

——, —— & ——. Différences de réaction du ver de terre et des helminthes de l'intestin vis-à-vis de quelques anti-helminthiques.—*C.R. Soc. Biol.* 1928. Apr. 17. Vol. 98. No. 12. pp. 1021–1022. [1 ref.] [Pharm. & Therap. Inst., Faculty of Med., Lisbon.]

Rico (J. Toscano). L'action des sulfures d'alcoyles sur l'*Ascaris lumbricoides*.—*C.R. Soc. Biol.* 1927. Aug. 26. Vol. 97. No. 25. pp. 718–719. [4 refs.] [Pharm. & Therap. Inst., Faculty of Med., Lisbon.]

——. L'action des sulfures alcalins et de quelques dérivés organiques sur l'*Ascaris lumbricoides*.—*C.R. Soc. Biol.* 1927. Aug. 26. Vol. 97. No. 25. pp. 719–720. [Pharm. & Therap. Inst., Faculty of Med., Lisbon.]

Sankine. Revue des travaux sur la culture des vers parasites en milieux artificiels.—*Russian Jl. Trop. Med.* 1928. Vol. 6. No. 5. pp. 333–338. [In Russian.]

Scriabine (K. I.). Conférence régionales tenue à Minsk sur la lutte contre les Trichinella.—*Russian Jl. Trop. Med.* 1928. Vol. 6. No. 5. pp. 329–332. [In Russian.]

Stankoff (A. G.). Au sujet des invasions vermineuses parmi la population de la ville de Loubni (Ukraina).—*Russian Jl. Trop. Med.* 1928. Vol. 6. No. 5. pp. 322–324. [In Russian.]

Tsvétaeff (A. A.). L'infestation vermineuse parmi la population écolière.—*Russian Jl. Trop. Med.* 1928. Vol. 6. No. 5. pp. 326–328. [8 refs.] [In Russian.]

## LEPROSY.

Clark (Taliaferro). Sur la lèpre aux Etats-Unis. [**Leprosy in the U.S.A.**]—*Bull. Office Internat. d'Hyg. Publique.* 1928. May. Vol. 20. No. 5. pp. 723–728.

The well-known incidence of leprosy in the Southern States is described, and also the foundation of the National Leprosarium at Carville in Louisiana. Here all the known lepers are now well looked after, and only discharged when they have been free from active disease and infectivity for two years. The laws regulating their transport to Carville are described.

L. Rogers.

Palacios de Borao (Gonzalo). **An Epidemiological Study of Leprosy in Porto Rico with Special Reference to Topographic and Climatic Factors.**—*Porto Rico Rev. of Public Health & Trop. Med.* 1928. July. Vol. 4. No. 1. pp. 20–45. With 6 maps. [Dept. of Health, & School of Trop. Med., Univ., Porto Rico.]

This is an interesting account of a leprosy survey in Porto Rico, where there is a single leper colony with sixty inmates, and a growing waiting list. The survey revealed 137 cases, all, with two exceptions, distributed in the coast district below 100 feet elevation ; the remaining cases were found in inland towns on the main road across the Island. The cases occurred predominantly among city dwellers. The known cases give a rate of 0·1 per mille, but it is considered that there are probably two early unrecognized cases for each known one. No definite relationship to rainfall was found, but nearly all the cases developed within the temperature isotherms of 77° and 78° F., which corresponds with the low lying coastal area. Although segregated lepers often falsely deny any knowledge of leper relations, the disease was found to occur in families, examples of which are given. Conjugal cases, as usual, were very rare, on account of the first two decades of life being those of most frequent infection.

L. R.

Neff (E. A.). [**Report on Makogai Leper Asylum, 1927.**]—*Ann. Med. Rep. Fiji, for Year ending 31st Dec., 1927.* pp. 35–38. With 1 diagram.

As is frequently the case with Colonial Medical Reports, no index or table of contents is included, necessitating turning over every page to find references to any particular disease. Patience is however rewarded by finding on page 35 an interesting report on the Makogai Leper Asylum [it should be called a leper hospital, as active treatment is used] which shows 194 admissions from the various Oceanic colonies served by the institution, including New Zealand, and 439 cases remaining at the end of the year. A satisfactory feature is that in December 36 patients were found fit for discharge on parole after being two years free from active disease and bacteriologically negative. Two children were born but were at once separated from their parents and are doing well under the charge of the Sisters. The deaths amounted to 44, 19 of which were due to exhaustion from leprosy, and the rest

to complications, especially tubercle. "Three hundred and seven patients received treatment and the results were better than usual The best index is perhaps the enthusiasm of the patients themselves." Table C gives the results, and shows that the ethyl esters and sodium gynocardate gave the best results, and the Mercado mixture and sodium morrhuate the least improvement. The sodium gyncardate was Martindale's Fraction C. [This is now being tested in other places.]

L. R.

COOKE (F. H.). **Report on Leprosy in the Ho District, 1926-27.**—*Gold Coast Rep. Med. & San. Dept. for Year ended Apr., 1926.–Mar. 1927.* Appendix C. pp. 126–127.

The author describes starting the treatment of lepers at his hospital in the Ho district of the Gold Coast Colony, with such success that in six months 77 cases had been admitted to the hospital leper settlement. Land will shortly be acquired for a separate settlement for the colony, all of whose inmates have come voluntarily for the sake of the treatment, and two have already apparently recovered.

L. R.

i. GIACARDY. Un cas de lèpre autochtone en France. [**A Case of Autochthonous Leprosy in France.**]—*Bull. Acad. Méd.* 1928. June 26. Year 92. 3rd Ser. Vol. 99. No. 26. pp. 717–721. With 2 text figs.

——. Sur un cas de contamination lépreuse en France par lèpre importée.—*Ann. Dermat. et Syph.* 1928. Aug. 6 Ser. Vol. 9. No. 8. pp. 695–699. With 2 text figs.

ii. SPILLMANN. A propos d'un cas de lèpre tuberculeuse observé dans le département de Meurthe-et-Moselle.—*Bull. Acad. Méd.* 1928. June 26. Year 92. 3rd Ser. Vol. 99. No. 26. pp. 721–725.

iii. JEANSELME (E.). Des modifications qu'il conviendrait d'apporter à la loi du 17 avril 1833 pour que les lépreux, dont la période latente excède cinq ans, puissent bénéficier d'une pension de l'Etat. [**Changes in French Law to enable Lepers to draw State Pensions.**]—*Ibid.* July 17. Vol. 100. No. 29. pp. 851–854.

i. This instructive case is an interesting example of the rare occurrence of contagion in Western Europe from an imported case. The patient was a servant girl in personal attendance for one year on a lady suffering from leprosy contracted in French Guiana, her duties including massaging the patient and sleeping in her room, although in a separate bed. The first symptoms appeared seven years later, and when seen after another three years the case was a typical nodular one.

ii. This is another case of nodular leprosy found in the Meurthe-et-Moselle department of France in a Portuguese subject, who had apparently contracted the disease in Portugal, where many cases are known. He had worked in France for five years, and had suffered from the disease for two and a half years, so had entered the country while in the incubation stage. The writer advocates training medical men in the symptoms of leprosy in dermatological clinics, and the organization of centres for the isolation and treatment of lepers, and Professor JEANSELME supported his views.

iii. The author points out that under the French pension rules colonial officers' claims are only admitted for such diseases, contracted

during foreign service, as are discovered within five years of retirement. He quotes three cases in which leprosy was discovered subsequent to that period, and he advocates an alteration of the law to cover such hard cases, since the incubation period of leprosy may exceed five years.

L. R.

Levi (Italo). Contributo allo studio della lebbra in provincia di Trieste. A proposito di un caso osservato a Trieste. [**Leprosy in Trieste.**]—*Giorn. Ital. de Dermat. e. Sifil.* 1928. Apr. Vol. 69. Year 63. No. 2. pp. 292–306. With 10 figs. on 3 plates. [22 refs.]

The author has found records of 9 cases of leprosy since the commencement of the present century, eight from abroad and one from Puglia. He adds another observed by himself.

This was a man of 58 years, a native of Corfu but residing in Trieste for the last 15 years, a tanner by trade who worked barefoot. The case was a severe one of nodular and anaesthetic leprosy, affecting the face and limbs, with ulcers on the sole of each foot. He was treated in turn with chaulmoogra oil, antileprol, cuprocyan and cacodylate of sodium. He was now having intramuscular injections of an " antilepra vaccine " from the Serotherapy Institute of Vienna.

Lepra bacilli were found early in the course of treatment, but for some time past the results of examinations have been negative. The author thinks that as the first symptom was a callosity on the sole of the foot which ulcerated, this was probably the primary lesion and site of entrance of the bacilli.

Photographs and radiographs showing the condition are well reproduced. A table is given of the distribution in Italy of the 291 lepers officially recorded in 1926.

H. Harold Scott.

Riecke (Heinz-Gerhard). Ueber einen Fall von Lepra tuberosa mit besonderer Beteiligung des Kehlkopfs und ueber die Beziehungen zwischen Leprazelle und Reticuloendothel. [**A Case of Lepra Tuberosa with Special Involvement of the Larynx and on the Relations between Lepra Cells and Reticulo-Endothelium.**]—*Beiträge z. Path. Anat. u. allg. Path.* 1928. June 29. Vol. 80. No. 1. pp. 201–217. With 1 text fig. and 1 coloured plate. [18 refs.]

A detailed post-mortem report on a case of leprosy showing lesions of the skin of the face and extremities, mucous membranes of upper air passages and of larynx, ulcers on leg, leprous lymph glands (neck, axilla, lumbar region, abdomen, etc.), and lepromata of liver and spleen.

Death was probably due to the severe stricture of the larynx. Histological examination of all organs revealed in most cases no leprous changes, but the organs in close connexion with the reticulo-endothelial system, viz., liver, spleen, lymph glands and spinal cord, showed leprous changes throughout.

The author comes to the conclusion that the morphological substratum of the reciprocal changes in bacilli and cells is a lipoid metabolic disorder. The reaction of the organism is borne essentially by elements of the reticulo-endothelial system. He suggests that this may offer a way to a successful treatment.

L. R.

Mayer (T. F. G.). **Some Problems in Leprosy.**—*West African Med. Jl.* Lagos. 1928. July. Vol. 2. No. 1. p. 109.

This short paper on leprosy in Nigeria points out that further research is required on the bacteriology and pathology of the disease. The author suggests that the gorilla and the chimpanzee might be used for experimental work on leprosy in West Africa with possible advantage.

L. R.

Smith (E. C.). **Pseudo-Leprosy.**—*West African Med. Jl.* Lagos. 1928. July. Vol. 2. No. 1. pp. 91–95. With 13 figs. on 4 plates on pp. 97–100. [Med. Research Inst., Lagos.]

At Lagos in West Africa, a skin disease simulating leprosy is not uncommon, and may possibly be a form of acne or lichen. It differs from macular leprosy in being free from acid-fast bacilli. Moreover, on injecting a few drops of a solution of pilocarpine nitrate, of the strength of $\frac{1}{4}$ of a grain in 1 cc., into the affected area and its surroundings, sweat appears on both equally, so the anhydrosis of leprosy is absent. The sensory conditions are not dealt with, although they form the best differential test.

L. R.

Marchoux (E.) & Caro (J.). Méthode de diagnostic sérologique de la lèpre. [**A Serological Method of Diagnosis of Leprosy.**]—*Ann. Inst. Pasteur.* 1928. May. Vol. 42. No. 5. pp. 542–552. [9 refs.]

Rubino's red corpuscle sedimentation reaction (this *Bulletin*, Vol. 24, p. 557) has been studied by these workers, who obtained positive results in half of ten cases by Rubino's technique, in which 1 cc. of the patient's serum is mixed with 1 cc. of sheep's red corpuscles after washing them in normal saline and adding 10 per cent. formal for 24 hours and then washing again. On keeping the mixture at 37° C., sedimentation of the red corpuscles within an hour is a positive result. The present workers found that the reaction is a specific one, and that by adding five parts of serum to one of the sheep's corpuscles instead of equal parts, the reaction was positive in all their leprosy cases within half an hour. In numerous new leper control cases the reaction was never positive. A temperature of 56° C. for an hour destroys the complement of the serum, and one of 60° C. destroys the specific substance as well.

L. R.

Labernadie (V.) & André (Z.). Recherches sur la sédimentation globulaire chez les lépreux. [**Sedimentation of Red Cells in Leprosy.**]—*Bull. Soc. Path. Exot.* 1927. Nov. 9. Vol. 20. No. 9. pp. 839–840. [4 refs.] [Leprosarium & Lab., Pondicherry, French India.]

The writers have used a modification of the method of Westergreen, in which venous blood is citrated, and the sedimentation time noted at the end of an hour, and they found the process to be accelerated in leprosy as compared with other diseases, and to be greater in nodular than in nerve cases.

L. R.

Molinelli (Ernesto A.). La sedimentación globular en la lepra. [**Sedimentation of Erythrocytes in Leprosy.**]—*Semana Méd.* 1928. Aug. 9. Vol. 35. No. 32 (1804). pp. 337–342. [10 refs.] ["José Penna" Inst. for Infect. Diseases, Buenos Aires.]; also in *Bol. Inst. Clin. Quirúrg.* Buenos Aires. 1928. Vol. 4. Nos. 28–31. pp. 425–439. [9 refs.]

This test was carried out by Westergreen's method in all the forms of leprosy, and in cases with and without complications. The results are presented in eleven tables. Sixty-seven patients in all were examined, and it was found that: (1) The sedimentation-rate was increased in 77 per cent.; least in the nervous form, fairly marked in the nodular, great in the mixed; (2) No correlation could be found between the sedimentation-rate and either the duration or the severity of the cases; (3) The rate was highest in those complicated with ulceration, nephritis, etc.; (4) The appearance of fresh symptoms, or exacerbations, was sometimes, but by no means always, accompanied by an increase in the rate; (5) The variations of rate of sedimentation do not depend on the cholesterin content of the blood; (6) The test has practically no prognostic value.

H. Harold Scott.

Cruz (M. C.), Lara (C. B.) & Paras (E. M.). **Blood Calcium in Leprosy.**—*Jl. Philippine Islands Med. Assoc.* 1928. May. Vol. 8. No. 5. pp. 216–221. [7 refs.]

Investigations in seventy cases in different stages of the disease showed little variation from the normal in any type, except that those with lepra fever as a rule showed slightly lower serum calcium.

L. R.

Villela (Gilberto G.). [In Portuguese & English.] **Calcemia da lepra. Blood Serum Calcium in Leprosy.**—*Sciencia Med.* 1928. Aug. Vol. 6. No. 8. In Portuguese, pp. 379–390. [12 refs.] In English pp. 391–395. [Oswaldo Cruz. Inst., Rio de Janeiro, Brazil.]

The serum calcium was estimated in 113 cases, including all types, and hypocalcaemia was found in every variety, the lowest figures being met with in the nerve cases, and next in the mixed form. The average figure was 8·82 mgm., and the variations from 6·0 to 10·7 mgm. against the normal of 9·0.

L. R.

Otero (Pablo Morales) & Hernández (Luis G.). **Studies of the Blood Chemistry of Leprosy. Analysis of Findings in Fifty Cases.**—*Porto Rico Rev. of Public Health & Trop. Med.* 1928. June. Vol. 3. No. 12. pp. 507–515. [8 refs.]

An investigation of fifty cases led the authors to the conclusions that (1) Leprosy in itself affects very little, if at all, the concentration of the blood urea, non-protein nitrogen, uric acid, creatinine and sugar,

regardless of the type, extent, or duration of the disease. (2) Whenever definite retention is found in leprosy it is usually due to a complicating nephritis or some other concurrent condition.

L. R.

PUBLIC HEALTH BULLETIN. No. 168. Washington. pp. iii + 74.—**Studies upon Leprosy. XLIII. The Plasma Proteins in Leprosy. XLIV. Observations on the Amount of Lipase in the Blood Serum of Lepers. XLV. The Synthesis of Iododihydrochaulmoogric Acid and its Ethyl Ester. XLVI. The Preparation of 4-Chaulmoogrylaminophenylarsonic Acid. XLVII. The Preparation of Chaulmoogryl Alcohol. XLVIII. Radium Treatment of the Nasal Lesions of Leprosy. Appendix: Protocol of Lipase Tests.**

XLIII. This study of the plasma proteins in leprosy showed that the average findings do not differ greatly from the normal, except that in a few cases of acute leprous fever the fibrin was nearly twice the normal, and the albumin-globulin ratio was low, namely about 1 as compared with 2 in normal persons, and thus resembles that of active phthisis. In recovered cases about to the paroled, the readings were nearly normal. In cases showing many bacilli, the albumin-globulin ratio was also low, and clinical improvement was generally coincident with a decrease of globulin.

XLIV. A large number of estimations of the blood lipase in various types and stages of leprosy are recorded, from which it is concluded that newly segregated lepers usually showed a normal amount of lipase in the blood serum, which did not differ materially in lepers showing improvement and those not doing so, and that the injections of chaulmoogra ester did not increase the blood lipase. On the other hand, it was decreased during some acute exacerbations of leprosy and in advanced pulmonary tuberculosis and diseases of the liver.

XLV, XLVI and XLVII deal with highly technical chemical investigations of chaulmoogra compounds. The arsenical one was too insoluble to allow of its use by injection, and the third may prove important as a starting point for the synthesis of other compounds.

XLVIII. This is a valuable report on a trial of radium in the treatment of the leprous lesions of the nasal mucous membrane. The technique adopted was the use of 50 milligrams of radium sulphate mixed with 23 milligrams of barium sulphate in a small glass tube with walls two millimetres thick, enclosed in a silver tube 23·2 by 3·7 millimetres placed in a screw-capped brass screen with a wall 1 millimetre thick. This was wrapped in a piece of rubber smeared with vaseline and pushed into the nostril, and secured by a silk thread attached to the cheek with plaster. Alternate nostrils were treated every four weeks for two hours until both had been given three exposures. The cases were nearly all under chaulmoogra ester injections, and as far as possible, similar control cases were observed, and bacteriological examinations made. It was found that the radium treatment was generally successful in removing leprous nodules from the nasal cavity, with great reduction of the lepra bacilli, although they were not completely removed. Perforations of the septum not infrequently followed the treatment, although rarely seen in the control

cases, so the authors only advise the treatment when nodules are causing some obstruction of the nose. No effect was produced on the general progress of the disease.

L. R.

Koulescha (G. S.). Sur la culture du bacille lépreux et sur la préparation de la léprine (Krasnodar). [**Culture of Lepra Bacillus and the Preparation of Leprine.**]—*Russian Jl. Trop. Med.* 1928. Vol. 6. No. 3. French summary p. 207. [In Russian pp. 194–206. 6 refs.]

This worker claims to have obtained multiplication of the lepra bacillus in culture media (nature not mentioned in the summary), and to have prepared a vaccine, which produced a cutaneous reaction in leprosy, and may be, he thinks, of diagnostic value.

L. R.

Rüdel (Otto). Zur Färbung der Leprabazillen. [**The Staining of Leprosy Bacilli.**]—*Cent. f. Bakt.* I. Abt. Orig. 1928. June 20. Vol. 107. No. 6–7. pp. 357–358.

The usual TB stain is most successful with leprosy bacilli when the solutions of stains and the sulphuric acid are more or less diluted. The method is as follows:

(1) Carbol-fuchsin (fuchsin 1·0, alcohol 10·0, concentrated carbolic acid 5·0-100·0) with or without ½–½ water; heat until bubbles burst. (2) Wash several times with sulphuric acid (5 per cent.) āā water. (3) Wash with water (or in 70 per cent. alcohol). (4) Loeffler's methylene blue [concentr. alcoh. methylene blue 30·0, caustic soda solution (0·01–100·0) 100·0] āā water, a few seconds up to 1 min. at the most. (5) Wash with water. (6) Dry and add Canada balsam (or instead of 6: rapidly wash in 70 per cent. alcohol for 2–5 seconds, absolute alcohol 1–3 seconds.—Toluol balsam).

This stain is so characteristic for leprosy that it can almost be used for differential diagnosis against TB. The leprosy bacilli react much more easily to stains and acids than TB.

L. R.

Spillmann (L.), Kissel (P.) & Florentin (P.). Etude histobactériologique d'un léprome cutané. [**Histological Study of a Cutaneous Leproma.**]—*C.R. Soc. Biol.* 1928. Sept. 18. Vol. 99. No. 26. pp. 842–844.

The authors have endeavoured to trace possible connexion between early cutaneous nodules and the nerves of the skin by means of silver impregnation staining, but conclude that any such relation is fortuitous, and that the early cutaneous nodules consist of a connective tissue cell reaction of a mild type not directly related to the covering epithelial layers of the skin.

L. R.

Henderson (John M.). **A Contribution to the Pathology of Cutaneous Rat Leprosy.**—*Indian Jl. Med. Res.* 1928. July. Vol. 16. No. 1. pp. 1–5. With 9 figs. on 3 plates. [14 refs.]

In 90 to 100 per cent. of rats inoculated in the groin with material rich in rat leprosy bacilli the disease was produced. Suspensions of the bacilli made by grinding up rat leprosy tissues, and centrifuging off

the sediment quickly, were standardized by comparing their opacity with standard tubes to regulate the dose. The rats were killed at different intervals and microscopical studies made, and it was found that from an early stage the bacilli are mainly intracellular in plump lepra cells of the corium, and both increase from the second to the eleventh week, and then the lesions spread and cause ulceration after the twentieth week. By also using intra vitam staining by intravenous and intraperitoneal injections during life of trypan-blue, he came to the conclusion that the lepra cell can thus be stained, and that it is simply a modified histiocyte.

L. R.

Henderson (John M.). **The Presence and Significance of Large Multinucleated Cells in Leprosy.**—*Indian Jl. Med. Res.* 1928. July. Vol. 16. No. 1. pp. 7–10. With 5 figs. on 2 plates. [10 refs.]

Microscopical sections of the early skin lesions of both macular and nerve leprosy showed multinucleated large lepra cells containing a few lepra bacilli, more frequently than hitherto suspected, and he suggests that they are derived from a fusion of lepra cells, and that this is an attempted defensive mechanism against destruction by the bacilli.

L. R.

Muir (E.). **The Iodide-Sedimentation Test in Leprosy.**—*Indian Jl. Med. Res.* 1928. July. Vol. 16. No. 1. pp. 135–139. With 1 text fig. [6 refs.]

The effect of iodides internally on the rapidity of the sedimentation of the red corpuscles in citrated blood has been investigated by the following simple and rapid technique:—1·2 cc. of vein blood is drawn up into a syringe containing 0·3 cc. of 5 per cent. sodium citrate solution, and the mixture ejected into a test tube. 1 cc. is then drawn up into a 1 cc. pipette graduated in 1-100ths, and the point stuck into a rubber disc in a rack. The point to which the corpuscles have sedimented is read off after two or three hours and the mean taken. In active fairly advanced nodular cases classed as B1 and B2, the index is high, such as 40 to 60, against 10 to 20 for normal bloods, and it rises by 10 to 30 points after a dose of iodide, which produces a reaction. When iodides, even in 240 grain doses, no longer produce a reaction, the index falls to 10 to 20, although the injection of hydnocarpus oil in doses of 6 to 7 cc. may produce a fall, and this reaction may be used to determine if the case is cured or not. An increase in the sedimentation time under iodides may be a sign of infection in doubtful cases or in leper contacts, and the test may also be used to determine if any drug produces reactions in leprosy, with possible benefit.

L. R.

Margarot (J.) & Deveze (P.). Le diagnostic sérologique de la syphilis chez les lépreux. [**Serological Diagnosis of Syphilis in Leprosy.**]—*Ann. Dermat. et Syph.* 1928. July. 6 Ser. Vol. 9. No. 7. pp. 576–580. [1 ref.]

Tests with a number of antigens showed that when all of them gave positive reactions in lepers it indicated concomitant syphilis, but if leprosy only was present, then some antigens gave positive reactions and some negative ones.

L. R.

Ehara (Ichiro). Die Veränderung des mit Leprablut geimpften Kaninchenhodens. [**The Changes in Rabbit's Testicle inoculated with Leprous Blood.**]—*Okayama-Igakkai- Zasshi* (*Zent. d. Okayama Med. Gesellsch*). 1928. May. Vol. 40. No. 5 (460). German summary p. 1037. With 4 figs. on 1 plate. [In Japanese pp. 1025–1036.] [Univ. Skin Clinic, Okayama.]

When 1 cc. of leprous blood is injected into the testicle of a rabbit, there appears for a few days a reddish swelling, receding after 4–5 days. The testicle then atrophies gradually until after 10–15 days it is only the third of its normal size.

Histologically the testicle first shows degeneration or necrosis of the sperm-cells, but after 5–6 days their protoplasm becomes light almost everywhere—probably owing to fatty infiltration—and finally the interstitial tissues proliferate with lymphocytic infiltration. In the seminal tubules one often sees numerous giant-cells which perhaps arise from the confluence of spermatocytes and spermatides.

As control experiments the author inoculated the blood of patients suffering from various kinds of herpes, encephalitis lethargica, furuncle, phthisis, lues papulosa, malaria, cancer of the bladder, and also rabies vaccine into the testicle of rabbits. In these experiments, necrosis or degeneration did often occur in the parenchyma, but no such serious atrophy as is found in the leprosy experiment.

L. R.

Nicolas (C.) & Roxas-Pineda (E.). **Results of Anti-Leprosy Treatment in Children at the Culion Leper Colony.**—*Jl. Philippine Islands Med. Assoc.* 1928. July. Vol. 8. No. 7. pp. 314–317.

This paper deals with the important subject of the treatment of the comparatively early cases of leprosy seen in the children born in the Culion Leper Colony, and only include cases of confirmed leprosy, clinically or bacteriologically positive, and not suspected cases. They numbered seventy, nearly equally divided between boys and girls, aged from 1 year 8 months to 15 years, and in the bacteriologically positive cases with a duration of a few months to five years. Chaulmoogra ethyl esters, and other allied preparations, were used by injection over periods of from ten months to five years six months, and in the majority for over two years. The results have been very satisfactory, for 50 per cent. of 36 males and 58·8 per cent. of 34 females are now negative. Of 36 early cutaneous cases, 66·8 per cent. are negative, and of a total of 40 early cases, 27 or 67·5 per cent. are negative, but only one of three advanced cases had cleared up after more than four years' treatment. They conclude that in early, or slightly advanced, cases this treatment is attended by a large percentage of apparent cures.

L. R.

Lara (C. B.), de Vera (B.) & Eubanas (F.). **Results of Trials by Sodium Hydnocarpate and Bruschettini Vaccine in Leprosy.**—*Jl. Philippine Islands Med. Assoc.* 1928. June. Vol. 8. No. 6. pp. 261–263. [Med. Section, Culion Leper Colony.]

Pure sodium hydnocarpate intravenously was tried in seven cases, but two were dropped owing to vein difficulty; the rest were moderately advanced mixed cases with predominating cutaneous lesions.

A 1 per cent. solution in doses of from 1 to 30 cc. and from 21 to 46 injections in six months showed neither improvement nor retrogression. Only one had any reaction and four put on weight. Bruschettini vaccine of unknown composition also gave only negative results.

L. R.

LARA (C. B.). **Evaluation of the Results of Treatment of Leprosy with the Chaulmoogra Derivatives.**— *Jl. Philippine Islands Med. Assoc.* 1928. June. Vol. 8. No. 6. pp. 263–272. [17 refs.]

One of the results of the improved treatment of leprosy is that whereas "six years ago most of the lepers had to be captured or forcibly detained, during the last three years the great majority have presented themselves voluntarily for isolation and treatment....A more general appreciation of the value of the chaulmoogra preparations will have a tremendous and far reaching importance in the eradication of the disease." The further results at the Culion Colony show that from 1906 to 1921 (fifteen years) only 47 cases were parolled as negative, but from 1922 to September 30 1927 (5 years and 9 months) 589 had been parolled or discharged as negative. Further, 39 had died in the colony after becoming negative, and 257 more are awaiting six months as negative before discharge, or a total of 885 negatives since 1922, or approximately 16 per cent. of the total cases treated, in spite of the great majority being in an advanced stage of the disease on admission. Ethyl esters made from *Hydnocarpus wightiana* oil has been the main treatment. During the last two years the plan of injecting small doses beneath the cutaneous lesions, in addition to larger doses intramuscularly, has been used with more rapid benefit than by the latter method alone. Young robust persons do best, and married life in adolescents is unfavourable to the treatment; females do better than males, and nerve cases better than other types. Most of the negative cases required three years to clear up. The author considers that febrile reactions are injurious, and the best results are got in their absence, for 90 per cent. had no appreciable reaction. Clinical relapses are uncommon, probably not more than 5 per cent. after being negative two years.

L. R.

ROXAS-PINEDA (Elisa), NICOLAS (Catalino) & LARA (C. B.). **The Carbon Dioxide Combining Capacity of the Plasma in Lepra Reaction, and the Effects of the Administration of Sodium Bicarbonate and other Drugs.**— *Jl. Philippine Islands Med. Assoc.* 1928. May. Vol. 8. No. 5. pp. 207–216. [5 refs.]

This investigation was undertaken owing to a suspicion of the occurrence of hypoalkalinity of the blood during lepra reactions, and Van Slyke's method was used for the determination of the carbon dioxide combining power of the blood plasma. Observations were made in 44 lepra reactions and in 18 uncomplicated cases, and in 27 of the reaction cases a slight diminution was found, which disappeared as the temperature fell to normal, but in no case were symptoms of acidosis noted. In three cases with nephritis renal function was impaired. The administration of sodium bicarbonate and of calcium chloride

was beneficial during the reaction, especially if combined, but antipyrine was of no value. Ammonium chloride increases acidosis and aggravates the reactions.

L. R.

Cruz (M. C.). **Ultraviolet Rays as Adjuvant in the Treatment of Leprosy.**—*Jl. Philippine Islands Med. Assoc.* 1928. July. Vol. 8. No. 7. pp. 312–314. [2 refs.]

This method has been used, in addition to chaulmoogra ester injections, in 34 cases for sufficiently long to be reported on, by means of compression with quartz applicators for one or two minutes up to an hour, with intervals of six to ten days as a rule. The total exposures varied from 15 minutes to 13 hours during a total period of eleven months. The result as regards the infiltrations and nodules was practically nil and numerous bacilli remained in the lesions, but in three cases of ulceration great improvement resulted. Lepra reactions were not induced, and the local reaction consisted in erythema, pain and blister formation, but no ulceration was produced, and pigmentation resulted. The rays do not appear to penetrate sufficiently to be of any value in treatment.

L. R.

Araujo (C. de Souza). [Tratamento moderno da lepra.] [**Modern Treatment of Leprosy.**]—*Oitava Conferencia sanitaria Pan Americana.* Lima, Peru. 1927. Oct. Broch. 28 pp. 1928. Rio de Janeiro. Impr. Inst. Osw. Cruz. [Summarized in *Bull. Inst. Pasteur.* 1928. Aug. 15. Vol. 26. No. 15. pp. 709–710.]

This brief abstract states that excellent results are obtained in Muir's A1, A2 and B1 cases with chaulmoogra esters, but not in more advanced nodular cases. The Mercado-Heiser formula during the three years 1921–24 in Para in 900 cases gave 43 per cent. of cures, 35 per cent. greatly improved, 15 per cent. stationary and 5 per cent. worse.

L. R.

Paldrock (A.). Die $CO_2$-Schnee- und Solganalbehandlung der Lepra. 2. Mitteilung. [**The $CO_2$-Snow and Solganal Treatment of Leprosy. 2nd Communication.**]—*Arch. f. Schiffs- u. Trop.-Hyg.* 1928. July. Vol. 32. No. 7. pp. 335–347. With 2 text figs.

The first course of treatment was described in an earlier article [*Ante*, p. 207.] After a six-months' interval for recuperation, during which no treatment was given, the treatment was resumed upon six of the patients. In the interval all six had increased in weight and showed a more rapid sedimentation of erythrocytes; in two cases the leprosy germs were still absent from the nasal mucus, in one they had disappeared, in two they were still present and in one they had made their appearance again. All the patients looked well. Leprosy bacilli taken from diseased parts of the skin after the first course of treatment were almost exclusively gram-negative granular forms. After the 6 months' interval there were also gram-negative rods and, in addition, gram-positive examples of both forms. Paldrock concludes that the

loss of acid-fastness is a sign of the weakening of the microbe, but that the change of form may be considered as an attempt to adjust itself to a saprophytic existence. He repeats his assumption that according to its structure and mode of development the leprosy germ belongs to the group of Actinomycetes or Streptothrix-like microbes, and that the bacillary form is only one of its developmental stages.

The second course of treatment was the same as the first one previously described. The good results already obtained in three cases and the moderate results in one case were maintained, while in two cases they were less satisfactory than in the first treatment. They confirm the results of the first treatment and justify the following conclusions: 3–4 seconds' freezing of lepromata with $Co_2$-snow at —78° effects such a colloidal change of all their constituents that activated defensive powers are now able to decompose them. The decomposed products are carried all over the body, and as antigens cause a formation of antibodies and a disappearance of leprous symptoms even from parts of the body not frozen with $CO_2$-snow. First the bacillary forms of the leprosy germs and then the granules, deprived of their protective envelope, are broken up. At each of the sittings, which are repeated every 3–4 weeks, 10 lepromata are frozen, and when such treatment has lasted for 4 months an equally long period of rest, during which no treatment is given, must ensue. But if after two years' $CO_2$ snow treatment the system becomes accustomed to the same stimulus a different one must be substituted. Previous experiences have shown solganal to be suitable for this purpose, because fresh protective forces are liberated for the fight against the already weakened leprosy bacilli, and the organisms themselves are chemically attacked by solganal. The continued breaking-up can be followed by the gradual decrease in size of the granules until they finally disappear. In the treatment of leprosy both remedies must be used, the $CO_2$-snow as an immunizing agent and the solganal as a specific chemotherapeutic drug.

L. R.

Feldt (Adolf). Die Goldbehandlung der Tuberkulose und der Lepra. Klinische Erfahrungen mit Krysolgan. [**The Gold Treatment of Tuberculosis and Leprosy. Clinical Experiences with Krysolgan.**]—44 pp. [73 refs.] 1923. Carl Marhold Verlagsbuchhandlung Halle a. S.

This is a survey of the literature on krysolgan in the treatment of tuberculosis, and no new work is reported. The survey is followed by summaries of all the articles noted. Only one case of leprosy is mentioned, that of Schnaudigel, who reports on a case of old maculo-anaesthetic leprosy which was very favourably influenced by injections of krysolgan.

L. R.

Manson-Bahr (Philip). **On Two Apparent Recoveries from Anaesthetic Leprosy following Protein Shock Treatment.**—*Lancet.* 1928. June 2. pp. 1111–1112. With 2 text figs. [3 refs.]

A study of the literature on the therapeutics of leprosy suggests that those reagents which cause the most profound constitutional disturbance produce the best results.

Two early cases of anaesthetic leprosy in students from the East, in whom the manifestations of the disease first appeared in England, are here described.

The first was treated with Hasson's vaccine, of which six intravenous injections were administered in 1925. The anaesthetic patch (from which leprosy bacilli were recovered) gradually resolved and the improvement has been maintained so that three years after the treatment all signs have disappeared. Realizing that the constitutional disturbance produced by the injection was probably due to non-specific " protein shock," the second case of anaesthetic leprosy of the fore-arm (of which illustrations are given both before and after treatment) was treated with intravenous injections of typhoid-paratyphoid vaccine in weekly doses ranging from 50–200 million organisms. The results were eminently satisfactory, not only did the macular rash disappear from the elbow, but growth of hair on the affected part and restoration of sensibility took place. The effect has remained permanent for two years.

It is possible that beneficial results such as these may not be obtained in every case of anaesthetic leprosy, but in early cases protein shock should be given a trial.

P. H. Manson-Bahr.

i. Remlinger (P.) & Bailly (J.). Essai de traitement de la lèpre par le B.C.G. Innocuité absolue de doses très élevées du bacilli. [**Treatment of Leprosy by B.C.G. and by Methylic Antigen.**]—*Bull. Soc. Path. Exot.* 1928. Apr. 18. Vol. 21. No. 4. pp. 283–287. [4 refs.]

ii. Souchard (L.). Note sur le traitement des lépreux par le B.C.G. à l'hôpital de Choquan.—*Arch. Insts. Pasteur d'Indochine.* 1926. Apr.–Oct. Nos. 3 & 4. pp. 51–54.

iii. Girard (G.) & Ducros. Essai de traitement de la lèpre par l'antigène tuberculeux méthylique.—*Bull. Soc. Path. Exot.* 1928. July 11. Vol. 21. No. 7. pp. 594–595. [1 ref.] [Pasteur Inst., Tananarive, & Manankavaly Leprosarium.]

i. Improvement reported in leprosy after injections of B.C.G. has not proved lasting. In the case now reported enormous doses were given without harm except the production of a cold abscess, namely 2 grams of the tubercle bacilli in six months. A considerable amelioration of the symptoms was observed for a time, but it was not maintained.

ii. Eleven cases with cutaneous lesions suitable for observing the effects of treatment have been given injections of B.C.G. subcutaneously, but the author was unable to confirm the favourable results previously reported by Pons and Castel, for no lasting curative action was found.

iii. The methylic tuberculous antigen of Nègre has been tried in the treatment of leprosy with negative results in six typical cases of different types, although in five of them no less than 67 one cc. injections were given subcutaneously in the course of four months.

L. R.

Araujo (H. C. de Souza). Tratamento externo da lepra. [**External Treatment of Leprosy.**]—*Sciencia Med.* 1928. May. Vol. 6. No. 5. pp. 209–213.

A compilation of brief notes from various accounts by those who have used external remedies in leprosy.

H. Harold Scott.

van Waveren (W. F. J.). Uitkomsten van een oor-, neus- en keelonderzoek bij lepralijders in Ned.-Indië. [**Results of Ear, Nose and Throat Examination of Lepers in the Dutch East Indies.**]—*Geneesk. Tijdschr. v. Nederl.-Indië.* 1928. Vol. 68. No. 2. pp. 208–234. [20 refs.]

The author examined 214 lepers in two asylums, one near Sourabaya, the other on Amboina. The results are presented in tabular form. From the text, which contains a review of the literature on this subject, the following is a selection:

*Ear.* Apart from the alterations of the skin of the external ear, no affection was found typical of leprosy. The frequency of chronic inflammation of the middle ear is not greater in lepers than in persons not suffering from this disease. No functional tests were made.

*Nose.* Nasal affections are very common and may play a part in the infectivity of the disease. Yet the author found nothing which could support the theory which considers the nose as the site of the primary infection. In patients in whom no nasal affection could be detected in 9 per cent. the lepra bacillus was found in the nasal mucus. Of patients with slight nasal symptoms (thick slime, peculiar pallor or redness of the mucous membrane) also 9 per cent. were found to harbour the bacillus. The same was present in 45 per cent. of patients with erosions, in 65 per cent. of patients with ulcers, in 80 per cent. of those with granular affection of the nose and in 50 per cent. of cases with perforation of the septum. The differential diagnosis has to be made from syphilis, rhinopharyngitis mutilans, tuberculosis, rhinoscleroma, abscess and simple perforating ulcer of the septum and ozaena.

*Throat.* Hoarseness is very common in lepers and is caused by laryngeal affections, mostly chronic laryngitis, the specific character of which, however, is not probable. Actual leprosy of the throat is most pronounced in patients showing extensive affection of the nose and is considered by the author as secondary to the latter.

W. J. Bais.

Marras (Antonio). La reazione meiostagminica stalagmometrica e precipitante nella lepra. [**The Stalagmometric and Precipitant Forms of the Meiostagmin Reaction in Leprosy.**]—*Biochem. e Terap. Sperim.* 1928. July 31. Vol. 15. No. 7. pp. 264–277. [45 refs.] [Dermo-Syph. Clinic, Univ., Cagliari.]

The meiostagmin reaction of Ascoli tended to fall out of use, partly because of the need of a Traube's stalagmometer and partly because of the delicate adjustments for variation in drops with variations in temperature. The replacement of true leprotic antigen by a synthetic one—ricinolic acid—was found to act well. To 0·2 cc. of the serum is added 1 cc. of antigen emulsion obtained by diluting the acid (1 pt.) with pure methyl alcohol (9 pts.) acetone-free; the results are read after 24–36 hours at 37° C.

The author carried out the tests with leprotic antigen and with the synthetic, by the stalagmometric and precipitant methods in parallel, with 33 cases of leprosy of which 5 were nodular, 11 anaesthetic, 14 mixed, and 3 incipient (children of lepers showing no clinical signs of disease). The results may be most easily presented in tabular form compiled [by the reviewer] from statements spread through the text.

| Form of disease. | M.R., leprotic antigen. | | | M.R., synthetic antigen. | | | M.R.P., with synthetic antigen. | | |
|---|---|---|---|---|---|---|---|---|---|
| | pos. | neg. | ? | pos. | neg. | ? | pos. | neg. | ? |
| Nodular (5) ... | 5 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 |
| Anaesthetic (11) | 7 | 1 | 3 | 7 | 3 | 1 | 6 | 3 | 2 |
| Mixed (14) | 9 | 4 | 1 | 9 | 1 | 4 | 14 | 0 | 0 |
| Incipient ... | 1 | 1 | 1 | 2 | 1 | 0 | 2 | 1 | 0 |

From this it appears that the tests are of equal value in nodular cases, the precipitant with synthetic antigen better in mixed forms. The numbers, however, are too small for drawing conclusions.

H. Harold Scott.

---

Camplani (Mario). Singolare reazione cutanea in lebbroso trattato con raggi X. —*Riforma Med.* 1928. Mar. 19. Vol. 44. No. 12. pp. 314–316; 319. With 1 text fig. [9 refs.] ["Maggiore" Hosp., Bergamo.]

## TROPICAL OPHTHALMOLOGY:

## A REVIEW OF RECENT ARTICLES.—X.*

Conjunctiva.—*Tularaemia of the Conjunctiva.*—Clark[1] has reported a case of atypical conjunctivitis tularensis in a boy aged 7. Moderate oedema of the lids, marked chemosis of the temporal portion of the bulbar conjunctiva, and an oval, punched out conjunctival ulcer, situated 4 mm. from the temporal margin of the limbus were noted. The ulcer was 3 mm. deep and from 4 to 5 mm. in diameter. It had raised, indurated edges and a gray necrotic centre. The cornea and uvea were unaffected. The preauricular gland was large, hard, and swollen. Pulse 120 and temperature 102·4 F. Symptoms began to subside on the sixth day and the ulcer had healed and all swelling had disappeared by the twenty-fourth day. At the end of the first week the serum showed a strong positive reaction to *Bact. tularense* in a dilution of 1–160. No animal source of infection could be traced.

*Conjunctival Bilharziasis.*—Sobhy[2] has recorded a case of bilharziasis of the conjunctiva in a child aged 8. The appearance suggested an abscess of the upper lid. A mass of inflammatory tissue was removed with the infiltrated tarsus. Shortly after operation the upper portion of the bulbar conjunctiva was reported to be highly injected and swollen and to show several yellowish points which resembled miliary tubercle. Simple local treatment was applied and nine intravenous injections of tartar emetic were administered. Very numerous ova of *Schistosoma haematobium*, furnished with terminal spines, were found in sections of the removed tissue. The ova were surrounded by a zone of endothelial cells and fibroblasts; many giant cells and lymphocytic nodules were observed.

Rhinosporidium kinealyi *of the Conjunctiva.*—Duggan[3] reports a case of rhinosporidial polypus of the conjunctiva. The growth sprang from the semilunar fold and the adjacent bulbar conjunctiva. It was papillomatous in character and its free end, which protruded through the palpebral fissure, was covered by a scab. The patient was a Mahommedan male aged 52 years. Pathological examination showed the nature of the case. [Possibly this condition is sometimes overlooked; but ordinarily its appearance is very typical. The growth is usually flattened by pressure between the lid and the globe, and shows branching ribs of fibrous tissue which resemble the markings on a leaf. On a bright red ground of granulation tissue, of which the main mass of the tumour is composed, yellowish, semitranslucent dots can be seen.]

*Trachoma.*—In a posthumous paper Noguchi[4] has reported the successful inoculation of experimental chronic granular conjunctivitis

---

* For the ninth of this series see Vol. 25, pp. 475–485.

1 Clark (C. P.). Atypical Conjunctivitis Tularensis: with Case Report.—*Amer. Jl. Ophthalm.* 1928. Apr. Ser. 3. Vol. 11. No. 4. pp. 280–284. With 1 text fig. [24 refs.]

2 Sobhy (M.). Bilharziasis of the Conjunctiva.—*Jl. Egyptian Med. Assoc.* 1928. Jan. Vol. 11. No. 1. pp. 12–15. With 2 text figs. & 2 coloured plates.

3 Duggan (J. N.). A Case of Rhinosporidium kinealyi.—*Brit. Jl. Ophthalm.* 1928. Oct. Vol. 12. No. 10. pp. 526–530. With 4 figs. on 2 plates. [6 refs.]

4 Noguchi (Hideyo). The Etiology of Trachoma.—*Jl. Experim. Med.* Supplement No. 2. 1928. Aug. 1. Vol. 48. No. 2. 53 pp. With 31 plates (5 coloured). [47 refs.] [Rockefeller Inst. for Med. Research, New York.]

after several passages of the *Bacterium granulosis* (referred to in this *Bulletin*, Vol. 24, p. 1013 & *ante*, p. 476) through monkeys. A rhesus was successfully infected by a pure culture of the bacterium and infected material was passed from rhesus to rhesus, rhesus to chimpanzee, chimpanzee to chimpanzee, and chimpanzee to rhesus. The bacillus was recovered as early as 37 days and as late as 204 days after culture inoculation, as well as in animals of the first and second tissue passages. Isolation of the bacillus is difficult owing to the frequent presence of other organisms. It is claimed that, in the absence of indications to the contrary, the bacterium granulosis may be considered to be the exciting micro-organism of trachoma in man and its equivalent, granular conjunctivitis, in monkeys.

Trapesontzewa[5] from her experience amongst Russian peasants, expresses the decided opinion that trachoma is not contagious in its late cicatricial form. Schools and military service play an important part in spreading infection; children, too, may become infected by trachomatous nurses. She thinks that there may be "trachoma carriers" just as there are known to be "carriers" of bacillary diseases such as typhoid. Cases of swimming-bath conjunctivitis may easily be mistaken for an acute form of trachoma.

Kanda & Takizawa[6] investigating the question of trachoma in Formosa found that in Takao, a city of about 48,000 inhabitants, 24 per cent. of Japanese school children and 68 per cent. of Formosan children were infected. The Japanese children live under better sanitary conditions, especially as regards over-crowding, than the Formosan. The authors believe that the water supply is of paramount importance as a factor in infection; the Formosans suffer since they prefer to obtain their supply from shallow, insanitary wells rather than from the City supply.

Harston[7] reports that he has treated about 50 cases of trachoma by exposure to ultra-violet rays and has effected a complete cure in every case, even though pannus seriously involved the cornea. After instilling cocaine the patient is seated in front of a tungsten arc lamp, his eyes being on a level with the arc and 2½ to 3 ft. distant from it. The lids are closed gently so as to avoid any wrinkling of their skin. A nickelled copper mirror is employed to focus the light on to the closed lids. Each eye is irradiated through the closed lids for a period of from two to four minutes. Sittings are repeated twice weekly with an interval of from three to four days between each. Rechnitzer[8] speaks highly of brisk friction applied to the diseased membrane. He employs cotton-wool wrapped round a glass rod and forcibly rubs the conjunctiva, paying special attention to the transitional folds, until

---

5 Trapesontzewa (C.). Certains caractères épidémiologiques du trachome.—*Rev. Internat. du Trachome.* 1928. Apr. Vol. 5. No. 2. pp. 49–66.

6 Kanda (K.) & Takizawa (T.). Some Epidemiological Factors of Trachoma Infection, especially the Water Supplies, among the Inhabitants of the City of Takao.—*Taiwan Igakkai Zasshi (Jl. Med. Assoc. Formosa).* 1928. Apr. No. 277. English summary pp. 27–30. [13 refs.] [Takao Hosp. & Municipal Board of Health, Takao.]

7 Harston (G. M.). The Light Treatment of Trachoma. A Painless Method for the Rapid Cure of Trachoma by Ultra-Violet Radiation and Some Notes on the Extreme Value of Ultra-Violet Radiology in Ophthalmology.—*China Med. Jl.* 1928. July. Vol. 42. No. 7. pp. 497–500.

8 Rechnitzer (Slavo). Ueber die Wirkung mechanischer Eingriffe bei Trachom.—*Med. Klin.* 1927. Nov. 4. Vol. 23. No. 44 (1195) pp. 1692–1693.

it bleeds freely. He states that no great pain is experienced and that most of his patients feel an immediate relief. In some cases a single treatment sufficed to cure the disease. Trachomatous ulcers of the cornea, too, responded well. The author very fully discusses why the treatment should prove so beneficial and concludes that the relief to the vascular and lymphatic circulation, caused by the free depletion and the removal of diseased tissue, is the chief factor. The relief afforded to the blood-supply of the transitional fold induces a freer flow through the limbic vessels and thus improves the nutrition of the cornea. DELANOË[9] has described the technique employed in treatment by chaulmoogra oil. This consists in a thorough grattage of the fully everted lids using a sterilized mop which is saturated with the oil. The treatment may be repeated daily and is claimed to be painless and rapidly beneficial. FOÀ[10] with an experience obtained from 40 patients whose ages ranged from 7 to 60 years, and who suffered from various types of the disease, also reports favourably on this form of treatment. He rubs the cocainized conjunctiva with a pledget of gauze soaked in the oil. The oil has a melting point of 20–21° C. and a specific gravity of 0·9535 at 25° C. and is kept liquid in a water-bath. The average course of treatment lasts from eight to twelve weeks. A paper on the therapy of trachoma by FUCHS[11] contains nothing novel and mostly deals with the ordinary and well known methods of treatment. Many such are described, but the author does not state his own experience of them. It is argued that since the trachoma follicles are situated in the deeper layers of the conjunctiva they are unlikely to be affected by surface applications. [Yet, if trachoma follicles represent the reaction of the tissue to a surface irritation, removal or diminution of such irritation should prove beneficial.] The difficulty in the diagnosis of true trachoma is mentioned.

CORNEA.—*Keratomalacia.*—VISWALINGAM[12] has fairly frequently observed keratomalacia amongst Indian labourers in Malay. As elsewhere it most often attacks badly nourished children under five years old. He thinks that neglect of the oil bath may be a factor in the incidence of the disease as the gingelly oil which is used for the bath and for cooking has a high nutritive value and contains valuable vitamins. Artificial feeding of infants and poor economic circumstances also play an important part. He recognizes the importance of treatment on general constitutional lines with the administration of foods having a high vitamin content. [The disease is common amongst children in Southern India, and careful dosing with codliver oil is the mainstay in prophylaxis and cure. If the condition of the child precludes oral administration of the oil it should be used as an inunction or should be given to the nursing mother of a breast-fed infant. Chlorides, especially that of calcium, are also helpful. It is necessary to avoid any local remedy which is in the least irritating ; even atropine may prove harmful.]

---

9 DELANOË. Technique de l'application de l'huile de chaulmoogra dans le trachome.—*Presse Méd.* 1928. June 30. Vol. 36. No. 52. p. 828.

10 FOÀ (Raffaele). Sui risultato della terapia del tracoma con l' " olio di chaulmoogra."—*Ann. di Med. Nav. e Colon.* 1928. May–June. Year 34. Vol. 1. No. 5–6. pp. 289–306. [16 refs.] [Eye Clinic, Univ., Turin.]

11 FUCHS (Ernst). Die Therapie des Trachoms.—*Wien. Med. Woch.* 1927. Nov. 26. Vol. 77. No. 48. pp. 1615–1618.

12 VISWALINGAM (A.). Keratomalacia.—*Malayan Med. Jl.* 1928. June. Vol. 3. No. 2. pp. 84–86. With 4 figs. on 1 plate.

Uvea.—*Iritis due to Relapsing Fever.*—Sachs[13] reports two cases of iritis which followed the inoculation of patients suffering from cerebro-spinal syphilis with *Spironema obermeieri*. The first was a man aged forty who had been infected ten years previously and whose nervous symptoms had been present for four years. A mild iridocyclitis attacked one eye four weeks after inoculation. This subsided in three weeks and all signs of inflammation had disappeared in eleven weeks. The second was a man aged forty-nine. Syphilitic infection had occurred twenty years before and cerebrospinal symptoms had existed for one and a half years. Iritis set in five weeks after the last attack of inoculation fever. It was of an acute syphilitic type and responded promptly to anti-syphilitic treatment. Sachs considers that the relapsing fever was the cause of the ocular symptoms in both cases, though he admits there may be some doubt regarding the second. He remarks that *Sp. obermeieri* has been more frequently found to be the cause of iritis in relapsing fever than has *Sp. duttoni*.

Mason[14] recommends the use of "streptococcus immunogen combined" (a Parke Davis preparation) as a substitute for milk injection in the treatment of iritis and iridocyclitis by "protein shock." He states the injection causes no unpleasant symptoms or febrile reaction and may be expected to effect an improvement within twenty-four hours. He injects 1 cc. intramuscularly and increases the dose every day to a maximum of 2 cc.

Lens.—*Cataract.*—The beneficial value of a "conjunctival bridge" is now well known to many surgeons but Ewing[15] found that a number of his colleagues were unfamiliar with this form of flap. He has found it helpful to deliver the lens by employing counter-pressure by a spatula placed beneath the bridge. Paton[16] overcomes the difficulty connected with the performance of an iridectomy beneath the flap by fashioning a narrow bridge and placing it well to the temporal side. Elschnig[17] prefers suture of the flap to extraction beneath a conjunctival bridge as he finds it easier to deliver the lens and to deal with the iris in the former case. He applies 5 per cent. tincture of iodine to the suture and to the entire wound after completing extraction so as to avoid any increased risk of infection. He uses a retro-bulbar injection of 1 cc. of 2 per cent. novocaine with adrenalin, and he cuts a conjunctival flap 3 mm. wide as he completes his section. He then passes a stitch through the flap and through a corresponding point of the wound in the bulbar conjunctiva. The portion of the suture lying between the lips of the wound is pulled to one side in a loop where it rests out of the way. The ends of the thread are tied in a half hitch which can be quickly tightened when necessary. Roy[18] has described

13 Sachs (Ilse). Recurrens-Iritis.—*Med. Klin.* 1927. Apr. 29. Vol. 23. No. 17 (1168). pp. 640–641. [1 ref.]

14 Mason (R. E.). Bacterial Antigen in Uveitis.—*Amer. Jl. Ophthalm.* 1928. Sept. Ser. 3. Vol. 11. No. 9. pp. 702–705. [2 refs.]

15 Ewing (A. E.). A "Conjunctival Bridge" in Cataract Extraction.—*Amer. Jl. Ophthalm.* 1928. Mar. Ser. 3. Vol. 11. No. 3. pp. 219–220. With 3 text figs.

16 Paton (Leslie). Conjunctival Bridge in Cataract Extraction.—*Brit. Jl. Ophthalm.* 1928. Oct. Vol. 12. No. 10. p. 525.

17 Elschnig (A.). The Corneal Suture in Senile Cataract Extraction.—*Amer. Jl. Ophthalm.* 1928. Apr. Ser. 3. Vol. 11. No. 4. pp. 267–270. With 4 text figs. [8 refs.]

18 Roy (Mano Mohun). A Cataract Expression Operation.—*Indian Med. Gaz.* 1928. June. Vol. 63. No. 6. pp. 323-324.

his method of performing SMITH's operation. The main modification appears to be that he performs an iridectomy with his knife whilst making the section.

*Glaucoma.*—MUKERJEE[19] has observed two cases of unilateral glaucoma in patients suffering from large naevi on the same side of the face as the affected eye. One of these was a boy aged 11, and the other a man aged 25. Both responded well to trephining.

SEDAN[20] has found that Lagrange's operation sometimes failed to give permanent satisfactory results when performed upon the trachomatous patients he so often encounters at Marseilles. The fistulous opening was liable to close and the ocular tension to rise again. He attributes this to a poor lymph circulation in the altered bulbar conjunctiva. In consequence he has modified the technique employed by LAGRANGE, and, instead of raising the flap with Graefe's knife cutting from below, he fashions a large flap similar to that used in ELLIOT'S operation. Care is taken to dissect the flap right down to the limbus; and a Graefe's knife is used to aid the dissection. He excises a larger piece of sclera in these cases also.

HAMBURGER[21] has for some years past advocated the medcinal treatment of glaucoma by the use of glaucosan. PISCHEL[22] found that in cases of glaucoma simplex treated by him laevo-glaucosan always reduced the ocular tension. In some cases meiotics which had become of no avail regained their former beneficial effect after a course of the drug. Laevo-glaucosan is used in a 2 per cent. solution. Holocaine 1 or 2 per cent. solution is first instilled as the treatment may prove a little painful. Very careful attention should be paid to the instillation of the glaucosan in order to induce the maximum degree of absorption. After all irritation from the holocaine has subsided and the conjunctival sac has become free from tears two drops of laevo-glaucosan are instilled. The patient should be supine and the surgeon should hold the lids apart for a minute whilst the eye is rotated in various directions so as to expose as much as possible of its surface to the action of the drug. The instillation can be repeated every fifteen minutes up to five instillations. In the course of a few minutes the eye becomes blanched and the pupil dilates. Aminoglaucosan is recommended for the treatment of acute glaucoma and is used in a similar fashion except that only one instillation is made. It produces a marked vascular reaction and is a very powerful meiotic.

For *intraorbital anaesthesia* during enucleation AYUYAO[22] recommends a " solution of 2 per cent. novocaine with some magnesium sulphate." He adds ten drops of adrenalin to 10 cc. of the solution and injects from 5 to 7 cc. He uses a 10 cc. glass syringe with a needle 5 cm. in length.

---

19 MUKERJEE (S. K.). Observations from the Ophthalmic Work at the Carmichael Medical College Hospitals in 1927.—*Calcutta Med. Jl.* 1928. Aug. Vol. 23. No. 2. pp. 45–66. With 13 figs. (5 coloured on 3 plates).

20 SEDAN (Jean). Technique spéciale de la sclérectomie chez les glaucomateux, atteints de trachome scléro-cicatriciel.—*Rev. Internat. du Trachome.* 1928. July. Vol. 5. No. 3. pp. 104-106.

21 HAMBURGER (C.). Treatment of Glaucoma with Glaucosan, Glaucosan Drops, and Amine-Glaucosan Drops.—*Arch. of Ophthalm.* 1926. Vol. 55. No. 6. pp. 533–544. With 3 text figs. & 5 figs. on 1 plate [10 refs.]

22 AYUYAO (Conrado D.). Intraorbital Anaesthesia in Enucleation of the Eyeball.—*Jl. Philippine Islands Med. Assoc.* 1928. Apr. Vol. 8. No. 4. pp. 173-178. [College of Med., Univ. of the Philippines.]

*Reports.*—One always now expects to find interesting matter in the Report of the Madras Government Ophthalmic Hospital, and that for the year 1927 fulfills one's expectations. Colonel WRIGHT was absent on leave during nine months of the year under review and Major P. VERDON acted as Superintendent in his place. The large number of 4,208 in-patients was admitted and 3,537 operations (1,601 being for senile cataract) were performed upon them. The out-patients numbered 25,899 with 2,042 operations. Capsulotomy with complete iridectomy was performed on 799 of the senile cataracts, and capsulotomy with peripheral iridectomy after delivery of the lens on 561. A high percentage of immediately successful results (6-36 and better) was obtained —92·94 ; whilst 2·5 per cent. resulted in less than 2-60. Eight primary infections occurred with one case of suppurative panophthalmitis, and choroidal haemorrhage was met with on three occasions. In only 0·73 per cent. of the ordinary cases was there any vitreous loss at the time of operation. The iris prolapse rate was 2·1 per cent. VERDON remarks that he performed a peripheral iridectomy if the lens presented at once ; but, if the lens showed any hesitation in presenting, he immediately performed a complete iridectomy. In 249 cases he executed the capsulotomy with his knife when making the section and was quite satisfied with the result. Comparing his experience of Madras patients with that of European ones he thinks the cornea of the former shows a greater tendency to relax when the section is completed, and that gaping of the wound at this stage occurs in them to a less extent than he has observed in Europe. He was unable, however, to attribute this to any increased tension in those eyes in which gaping tended to occur. [Possibly collapse of the cornea may more often be found in a poorly-nourished patient whose orbital cavity contains a minimum of fat.] Some interesting experiments were made with a view to determine the effect of intravenous injections of hypertonic NaCl solution upon the intra-ocular pressure. The conclusions reached were : (1) " Therapeutically the injection of strong sodium chloride solution is a valuable means of lowering the intra-ocular tension, effective in the great majority of cases and especially valuable as a pre-operative procedure ; (2) following the injection, the intra-ocular tension falls and the osmotic pressure of the blood goes up, in spite of a large increase in blood volume, but it remains to be shown whether the fall in intra-ocular tension is more closely connected with the osmotic pressure or with other changes in the constitution of the blood." 30 grains of NaCl in 100 cc. was the strength of the solution used. About 20 cc. was injected during a period of not less than ten minutes. A little normal saline solution was injected before and after the hypertonic solution in order to avoid skin irritation. Two patients of the twenty treated developed some distress about fifteen minutes after the injection had been administered.

H. Kirkpatrick.

---

## MISCELLANEOUS.

KATZENELLENBOGEN (I.). Ueber eine epidemische Glossitis in Palästina [**Epidemic Glossitis in Palestine.**]—*Arch. f. Dermat. u. Syph.* 1928. Feb. 29. Vol. 154. No. 2. pp. 269–277. [10 refs.]

Twelve cases of this affection are described selected from 68 seen by the author in the winter months December to February. Observation showed that there is an incubation period of 2–3 weeks. The state of the tongue at the various stages is described. In a quarter of the cases there was much pain. In the 3rd week the lips become inflamed, especially at the angles of the mouth and in many cases the throat becomes affected. Recovery is complete after 6–8 weeks, and there are lighter cases which recover early. Affection of the gums was never seen. The patients are labourers living on a monotonous diet, chiefly preserved food and legumes and sharing cooking utensils. By isolation and the care of cooking apparatus in one group of cases the spread was checked. In every case a smear was taken of the tongue and a culture made. Pneumococci were always found. Since according to NETTER pneumococci are present in only 4 per cent. of healthy mouths, it is concluded that the pneumococcus plays an important rôle in the aetiology of this disease. The histological findings are given. Besides the usual remedies the author employed neosalvarsan [? by injection] in a dose of 0·3 to 0·45 gm. with strikingly favourable results on symptoms, but he is doubtful whether the course of the disease was shortened. Points are detailed in which this glossitis differs from that named after MOELLER, and its relations to that described by MATHIS and GUILLET, and NOGUE and JAMIN are discussed [see this *Bulletin*, Vol. 22, p. 982–3]. The author says that this affection is one of the most frequent and most distressing of those occurring in Palestine in the rains. He intends to write another paper on this subject.

[With regard to incidence of pneumococcus in the healthy population POWELL, ATWATER and FELTON found it to be over 50 per cent. at Boston in a period of 7 months. " Practically everyone at some time during the course of a year is a carrier of a fixed type pneumococcus." In Palestine the proportion might well be less. If this glossitis is in part the result of a deficient diet, its apparent epidemic character could be explained without assuming it to be infective.]

A. G. B.

ROEGHOLT (M. N.). Bijdrage tot de miltchirurgie en tot de forensische beteekenis der miltscheuring. [**Contribution to Surgery of the Spleen and to the Forensic Significance of Rupture of the Spleen.**] —*Nederl. Tijdschr. v. Geneesk.* 1928. Mar. 31. 72nd Year. 1st Half. No. 13. pp. 1582–1596. With 9 figs. on 1 plate.

The author relates his experience in Java and quotes a case, which appears to prove that spontaneous rupture of the spleen actually occurs :

A Javanese woman under hospital treatment for enlargement of he spleen suddenly died in bed from rupture of the spleen under the

eyes of the attendants. No external traumatism could be made responsible for this complication.

Roegholt thinks that often a very slight trauma may have this dramatic effect, contrary to MÜLLER's opinion (see this *Bulletin*, Vol. 23, p. 634). This standpoint is also supported by case reports.

He rejects suture of the spleen, as being impracticable in view of the friability of the malarial spleen, and recommends extirpation which —if successful—is without any untoward effect on the health. The most practical method of splenectomy is by the way of median laparotomy under general anaesthesia (to prevent any loss of time). The tail of the pancreas is carefully handled and the splenic vessels are ligated in their course through the pancreatic tunnel. Enlarged malarial spleens, causing trouble by their size or otherwise, should be extirpated if they do not react to internal treatment. In such non-urgent cases local anaesthesia is recommended, which suffices if the spleen is not adherent to the diaphragm. The author has removed the spleen in a case of hypertrophic cirrhosis of the liver (with apparent clinical success). In cases of splenic abscess the cavity should be opened and drained; any attempt to remove the spleen in such cases might be fatal.

W. J. Bais.

SAYED (F. A.). **Splenectomy and its Complications in Egyptian Splenomegaly.**—*Lancet.* 1927. June 25. pp. 1345–1346.

Like COLEMAN, the author has noticed that splenomegaly is particularly common in the Eastern Delta of Lower Egypt. It is most frequent between the ages of 16 and 30 years, but may occur at almost any period of life. During 1925 twenty one cases of splenomegaly were operated upon. From four to eight months later the 17 survivors were in good health and at work. Although the mortality rate is high, the author believes that splenectomy is the only hope of avoiding early death in these cases.

R. T. Leiper.

COOKE (W. E.). **A Case of Early Tropical Elephantiasis treated by Protein Shock.**—*Lancet.* 1928. Feb. 25. pp. 390-391.

The patient, a white woman of 26 years, had lived in India, except for three years, since birth. In 1927 on the voyage to England, her right leg became red, painful and swollen. She was admitted to hospital on February 11th. Right leg swollen below the knee, one area being hyperaemic and tender. Right ankle measured 9¼ in., left 8¼ in. Groin glands on both sides enlarged; right iliac glands palpable and tender. Eosinophiles 10 per cent.: no blood parasites. Wassermann negative. Diagnosis was, commencing elephantiasis of the leg of probable filarial origin and, owing to the bacterial factor in elephantiasis, protein shock was tried. T.A.B. vaccine was given intravenously as follows:—February 25th, 50 millions: headache and vomiting with pain in enlarged glands. Temperature 103·4°. March 6th, 100 millions: temperature 101·8°, recurrence of headache and vomiting. March 12th, 200 millions: symptoms as before. March 19th, 250 millions: temperature 101·8°. On March 15th the right ankle measured one inch less and on 25th at discharge, had come down to

8¼ inch. By November there had been no recurrence and the patient was travelling in India. Protein shock, the author thinks, is worth a trial in such cases.

A. G. B.

DEDICHEN (H. H.). Om transport av malariablod og forsøk med rekurrensbehandling. **The Conveyance of Malarial Blood and Experimental Treatment with Recurrent Fever.** —*Norsk Magazin f. Laegevidenskapen.* 1928. Mar. Vol. 89. No. 3. pp. 258–263. With 2 charts in text.

The difficulties of treatment in Norway are due in part to the necessity for conveyance of the malarial blood over long distances, since the parasites can only be maintained in a living condition either in the human organism or in the anopheles. The latter are not easy to get in Norway and therefore inoculation must be employed. It has been found that the parasite carried in a gelatine medium will give successful inoculation up to 96 hours. Following PLANT and STERNER (1919) the author tried inoculation of the spirillum of recurrent fever in the treatment of paralytics in the hope that severe reactions might be avoided, and that the different strains tried might produce immunity not only towards each other, but also towards the *T. pallidum*. These hopes were not realized. The immune bodies of *S. Obermeieri, venezuelense* and *Duttoni* are specific and afford no protection one against one another. *S. Duttoni* was used in the present experiments. To keep an effective strain going injections had to be continued daily from one mouse into another for 4 days. Blood was drawn from the aorta and injected subcutaneously into a fresh mouse and intramuscularly into man. Inoculated white mice were obtained from Copenhagen and two cases, one of paralysis and the other of chronic epidemic encephalitis, were inoculated. In both the temperature rose, in one to 39°, but fell rapidly to normal. A secondary rise showed in one case after 14–19 days. Spirochaetes were not found in the blood and it would appear, therefore, that persistent passage through the animal body had deprived them of some at least of their pathogenicity to man. The need for frequent inoculation makes the treatment both difficult and expensive.

The author believes that if one could keep the malarial parasite alive as by the gelatine method during a journey of 96 hours, then in Norway the difficulties of the treatment even in the smallest institutions would disappear.

J. Sorley.

NYE (Robert N.), ZERFAS (Leon G.) & CORNWELL (M. Agnes). **The Presence and Importance of Yeastlike Fungi in the Gastrointestinal Tract in Pernicious Anemia, in Other Diseases and in Normal Individuals.**—*Amer. Jl. Med. Sci.* 1928. Feb. Vol. 175. No. 2. pp. 153–174. [31 refs.] [Thorndike Memorial Lab., Boston City Hosp., Boston.]

The work of ASHFORD on the presence of yeast cells in sprue and the reports of WOOD on the discovery of *Monilia psilosis* in pernicious

anaemia, have stimulated the authors to reinvestigate the whole subject of the rôle played by these fungi in the gastro-intestinal tract and also to study the classification of isolated strains.

The isolation of yeast-like fungi from the stools or gastric contents is extremely easy, because they will grow on a medium with an acidity usually sufficient to prevent growth of ordinary intestinal bacteria. The morphology, mycelium, ascospore formation and cultural characteristics were investigated in every case.

The fermentation results obtained after four days' incubation were thought to be more accurate than those after fourteen days; 192 stools were cultured from 121 individuals and 31 gastric contents from 29 individuals. Tables were then constructed which indicated that much of the confusion in the literature of the yeast-like fungi arises from the variety of generic names given to apparently identical organisms. For instance, *Oidium*, *Monilia*, *Saccharomyces*, *Endomyces*, *Parasaccharomyces* and *Blastomyces* were all used to name, apparently, the same fungus. Yeast-like fungi were found in 51 cases, or 42 per cent. of the material investigated. Similar organisms were recovered from 72 per cent. of gastric contents. It was decided not to call a stool or gastric sample positive unless 10 or more colonies were obtained on the first culture. From 16 cases with diarrhoea, four stools were positive. The incidence of yeast-like fungi in stools from pernicious anaemia is somewhat higher than in the stools from cases of miscellaneous disease. Only one strain was obtained from the stools of normal persons.

The cultivation of gastric contents gave dissimilar results. The incidence in cases with pernicious anaemia is distinctly higher than in the miscellaneous disease group. The cases without achylia show a relatively low incidence. The outstanding feature of the results of stool culture is that *Parasaccharomyces A.* was the only yeast-like fungus recovered on the first attempt and in appreciable numbers. Members of this group could not be differentiated from *Monilia psilosis* and are apparently identical with *M. albicans*. It seems likely that organisms of this class are of relatively common occurrence in the mouth and gastro-intestinal tract and that their presence has no clinical significance. In conditions of general debility the normal defences of the body are broken down and these yeast-like fungi are able to invade the oral mucosa producing the typical membrane of thrush.

The well known point in regard to *Monilia psilosis* is that rabbits are invariably killed by intravenous injections of suitable amounts of culture. The most striking lesions found at autopsy are the miliary abscesses in the cortices of the kidneys. This is not specific as strains of other yeasts will do the same. The experiments would seem to indicate that this group of yeast-like fungi is not particularly pathogenic for rabbits. The minimal lethal intravenous doses are relatively large and the invasive process slight. The blocking of the renal capillaries is followed by abscess formation and destruction of the renal parenchyma, death being due to uraemia. In the past, every yeast-like fungus isolated from the blood, sputum or stool has been given a new specific name without comparison with previous strains and has been called pathogenic merely because it was recovered from a diseased condition and produced fatal lesions in rabbits on intravenous injection.

It has been found impossible to confirm the findings of Ashford or Wood (See this *Bulletin*. Vol. 22. pp. 371 and 758–9).

[The results agree in the main with the conclusions arrived at by the reviewer in his Report on Researches on Sprue in Ceylon 1912–1914 (1915. pp. 90 and 91).]

P. H. Manson-Bahr.

Snijders (E. P.). De longontsteking bij de tropische volken. [**Pneumonia in Tropical Populations.**]—*Nederl. Tijdschr. v. Geneesk.* 1928. Mar. 17. 72nd Year. 1st Half. No. 11. pp. 1278–1288. With 4 charts in text. [11 refs.]

This is a clinical lecture in connexion with the demonstration of 5 cases of lobar pneumonia, 4 in Javanese, 1 in a Chinese.

The clinical peculiarities of pneumonia in the Asiatic are related: the dyspnoea is hardly ever severe; the patient generally makes a more quiet impression than the European sufferer from pneumonia; herpes is very rare, rusty sputa are comparatively so; the onset of the fever is usually acute, but its course is more often irregular and long lasting; the general symptoms often precede the local signs of infiltration of the lung for several days; the localization of the affections is more variable than in Europe; there exists more predilection for the right central lobe.

The prevalence of pneumonia in the Dutch East Indies is shown by several statistics, from which also the often noticeable epidemic character of the disease is apparent. Bad housing conditions (overcrowding, insufficient ventilation), poor physical condition of the inhabitants and climatic influences may account for such epidemics, especially occurring in prisons, immigrant ships, etc. Improvement of the housing accommodatoin, especially " spacing out " of the sleeping places, give the best results in combating these epidemics.

Pneumococcal diseases without pulmonary manifestations are more common in the tropics than in Europe.

W. J. Bais.

de Castro (A. Bayley). **A Note on the Value of Rectal Injections of Potassium Permanganate in the Treatment of Pneumonia.**—*Indian Med. Gaz.* 1928. Mar. Vol. 63. No. 3. pp. 120–123. With 5 charts.

Nott having reported in the *British Medical Journal* (July 17, 1926) on the value of rectal injections of permanganate of potassium solution in the treatment of pneumonia, Lt. Bayley de Castro, I.M.D., has tried the method at Port Blair, treating 22 cases with 50 per cent. of recoveries. He notes rapid disappearance of respiratory discomfort, early fall in temperature, early commencement of and ease in expectoration and general improvement. " A 50 per cent. mortality," he says " represents a real reduction." Other treatment was usually followed as well. The solution of 2 grains to the pint is introduced warm, from 4 oz. up to one pint 3 or 4 times a day. Notes are given of seven cases. The rationale is unexplained.

A. G. B.

Van der Gugten (F. E.). Opmerkingen betreffende nier-en blaassteenlijden. [**Remarks on Kidney and Bladder Stones.**]—*Geneesk. Tijdschr. v. Nederl.-Indië* 1928. Vol. 68. No. 1. pp. 61–67.

This article contains many short practical hints for operative intervention in the cases of stones of the kidney and bladder. The following represents a selection.

In children conservative treatment is justified, since the chances of spontaneous voiding of the stones are greater than in adults ; complications or serious symptoms may furnish indications for operation. In aged people the general condition puts certain limits to operability. In otherwise healthy individuals full information should be obtained regarding the size, number and situation of the stones, the condition of the urinary passages and the function of the kidneys. In bilateral affections the most seriously affected side should first be dealt with. Large stones, filling up the whole pelvis, are generally accompanied by serious affection of the specific tissue of the kidney and by infection and consequently lead to nephrectomy. Smaller stones and ureteral stones may be voided under influence of glycerine injections into the pelvis. Stones in the lower part of the ureter sometimes find their way into the bladder after cauterization of the ureteral opening. Large bladderstones in males require high section, smaller stones in men and even fairly large ones in women may be treated with lithotripsy and aspiration.

The author, a surgeon, pleads for collaboration with the internist in such urologic cases, but the demands he puts on the diagnostic capacities of the internist hardly fall within the limits of this specialism.

As regards prophylaxis, attention is drawn to avitaminosis A as a cause of stone formation in the urinary passages.

W. J. Bais.

Miyamoto (Kazuo) & Korb (J. H.). **Meniscocytosis (Latent Sickle Cell Anemia) : its Incidence in St. Louis.**—*Southern Med. Jl.* 1927. Dec. Vol. 20. No. 12. pp. 912–916. [13 refs.] [Barnes Hosp. & School of Med., Washington Univ., St. Louis, Mo.]

The conclusion here is that meniscocytosis (latent sickle-cell anaemia) is a relatively common condition in negroes. It was observed by the authors in 6·3 per cent. of 300 negroes in wards in St. Louis institutions, but not in any of 100 white patients. The negroes with meniscocytosis seemed as normal as other negroes and could only be distinguished by specially prepared blood-films.

A. Alcock.

Hahn (E. Vernon). **Sickle-Cell (Drepanocytic) Anemia. With Report of a Second Case Successfully Treated by Splenectomy and Further Observations on the Mechanism of Sickle-Cell Formation.**—*Amer. Jl. Med. Sci.* 1928. Feb. Vol. 175. No. 2. pp. 206–217. With 1 text fig. & 3 figs. on 2 plates. [13 refs.] [Lab. of Surg. Path., Indiana Univ. School of Med., Indiana.]

Since the history, race-restriction, pathology, and haematology of sickle-cell anaemia have quite recently been reviewed in this *Bulletin*, it will be sufficient now to pay attention to the particular case upon which this paper is based.

The patient was an emaciated " coloured " infant of 18 months, brought to hospital with a complaint of persistent cough, drowsiness, and vomiting. There was evidence of rickets and of bronchopneumonia. At one time at least there was high fever. The sclerae had a peculiar greenish tint, the superficial lymphatic glands were enlarged, the belly was big, and the liver and spleen were much enlarged. A blood smear showed numerous poecilocytes, sickle-cells, and nucleated red cells ; after standing one hour at room temperature, all the red cells in a sealed wet smear had become sickles. The average leucocyte percentages were, polymorphs 49, lymphocytes 46, large uninuclears 2, eosinophils 2, basophils 1. The red cell resistance was increased. About ten weeks after admission the patient's spleen was removed. The wound healed well ; after the tenth day the temperature became normal ; and cough and drowsiness and vomiting ceased. When the child was re-admitted for examination four months after operation, it was free from symptoms and appeared well nourished ; but there was still some evidence of rickets, of enlargement of lymph-glands and of liver, and of thickening of the right lung, and in a sealed wet blood smear allowed to stand as before, all the red cells had become falciform.

The excised spleen was about four times normal size ; the capsule was thickened and scarred, the cut surface was very dark and almost gelatinous, and the Malpighian bodies were hardly visible. Microscopic study of sections showed intense congestion and even massed infarction of the pulp with red blood cells, but no increase of connective tissue ; in the sections of formal-fixed spleen the red cells were falciform, in Zenker-fixed sections almost all were circular.

A. Alcock.

Mandry (Oscar Costa) & Marín (R. A.). **Study of an Outbreak of Diarrhea in a Convict Camp near San Juan.**—*Porto Rico Rev. of Public Health & Trop. Med.* 1928. Feb. Vol. 3. No. 8. pp. 311–320. With 1 diagram. [4 refs.] [School of Trop. Med., Univ., Porto Rico.]

The outbreak of diarrhoea was investigated thoroughly by the authors ; thirty-two out of forty persons, living under the same conditions in the convict camps, were affected. No bacterium or protozoa was found that could be considered responsible. No typhoid dysentery group organisms were found, and *E. histolytica* was ruled out on the basis of comparative incidence. Anaërobic cultures were not made—an anaërobe may possibly have been the cause ; or this may have been a non-living chemical irritant derived from or associated with one of the foodstuffs in the common dietary.

H. M. Hanschell.

## REVIEWS AND NOTICES.

Baer (Jean G.) [Docteur ès Sciences, Institut de Zoologie, Université de Neuchâtel (Suisse).] Supplément X. Monographie des cestodes de la famille des Anoplocephalidae. [**Monograph on the Cestodes of the Family Anoplocephalidae.**]—*Suppléments au Bulletin Biologique de France et de Belgique.* 1927. pp. vi+241. With 43 figs. & 24 figs. on 4 plates. Paris: Laboratoire d'Evolution des Êtres organisés, 105 Boulevard Raspail, Les Presses universitaires de France, 49 Boulevard Saint-Michel. London: Dulau & Co., 34–36, Margaret Street, Cavendish Sq. [60 fr.]

The family *Anoplocephalidae* created by Fuhrmann in 1907 now contains 28 genera and 114 species. Of these 84 species occur in mammals, 17 in birds and 13 in reptiles. The mammalian parasites are found chiefly in Marsupials (22 species), Ungulates (27 species) and Rodents (18 species). Primates are infested by four species, while Man is but rarely parasitized. The species *Bertiella studeri* Blanchard 1891, is the only record listed. This parasite has a wide distribution in Africa and tropical Asia, occurring in the monkeys *Simia satyrus*, *Anthropithecus troglodytes*, *Hylobates hoorlock*, *Cercopithecus pygerythrus*, *Cercopithecus schmidtii*, *Cynomolgus sinicus* and *Cynomolgus fascicularis*. This extensive list of hosts is the result of a fusion of several species, viz. *Taenia satyri*, *Bertiella conferta*, *Bertia polyorchis* and *Bertiella cercopitheci*, all of which the author's researches have shown to be synonymous with *Bertiella studeri*. The monograph gives an admirable summary of the morphology and classification of this somewhat difficult family. The literature has been carefully collated and a most useful host-list is added. The author discusses briefly the problem of transmission which has not yet been solved for any species in this family. He notes finally that the common infection of lambs with *Moniezia* is entirely absent from Switzerland.

R. T. Leiper.

Leprosy Notes. 1928. July. No. 2. 28 pp. Issued Quarterly by the British Empire Leprosy Relief Association. 24, Cavendish Square, London, W.1.

These Notes, written for the greater part in a popular style, should serve a useful purpose in the propaganda work of the British Empire Leprosy Relief Association. In attempting to answer the question. Is there a cure for leprosy? Muir points out the resemblance of the disease to tuberculosis in its insidious onset and the need of a suitable soil and environment for its development. In those countries where leprosy is prevalent there are probably many potential lepers who show no signs of active disease. Under these circumstances no wise physician will pronounce a cure. At the same time the recent advances in treatment have induced both patients and employers to adopt a more hopeful outlook and to hold a more humane conception of leprosy. To stamp out such a chronic disease the value of the institution of propaganda-treatment-survey centres in the endemic areas is emphasized. By such means, in addition to the education of both natives and doctors, any predisposing causes, such for example as guinea-worm, may be traced and eliminated. For the breaking down of lepromata the oral administration of potassium iodide used in conjunction with chaulmoogra oil is recommended, especially in Leboeuf's three classes of patients. The reaction produced by iodides is readily controlled owing to their rapid elimination from the body. "Iodides not only break down the leproma, but also indirectly produce auto-vaccination." The drug is again of great value in establishing the diagnosis and confirming the cure

of the disease. Dr. Marie WARDMAN also confirms the value of iodide treatment. In briefly discussing the bearing on prophylaxis of recent advances in treatment, ROGERS advises the repeated examination every six months for five years of all contacts for the purpose of identifying early cases. In 80 per cent. of infections through living in the same house as a leper, the incubation period before the early symptoms appear is under five years. It is by such a procedure that the possibility of stamping out the disease might be attained. TRAVERS briefly describes the good results obtained by the oral administration of *Hydnocarpus anthelmintica* seeds, the so-called Tai Foong Chee treatment. The crushed seeds are given as a powder in the proportion of 3 parts *H. anthelmintica* and 1 part of *Cannabis indica*, one half drachm of the mixed powder being given twice daily after food. Among its several convenient features are mentioned the low cost of the drug and its suitability for women and children, together with the little or no toxic reaction observed by its use. In the Southern Anglo-Egyptian Sudan FRASER reports the increase of the disease during the last few years, the obvious contributory causes being the erratic annual rainfalls, with the subsequent local famines, and the improvidence of the people themselves. Here the District Commissioners have done much to help the situation. The natives have learned the contagious nature of leprosy and to show more confidence in the medical facilities offered to them, while such provision is much hampered through lack of funds. The proposed scheme of procedure in Teso, Uganda, where 1 per cent. of the natives are lepers, is outlined. A short account of the work at the Chacachacare Leper Settlement, Trinidad, with its 447 inmates, is given by the Medical Superintendent. The Honorary Secretary of the Indian Council of the Relief Association furnishes a short report of the work done by the Council during the 3 years of its existence.

These abstracts will give some idea of the value of this booklet.

W. Jenkins Oliver.

KHARTOUM. **The Kitchener School of Medicine, Khartoum. Second Report, 1926-27.** [ATKEY (O. F. H.).—56 pp. With 5 plates.

The usefulness of this most interesting report will certainly not be confined to the Sudan. As the medical training of African natives in British Colonies develops there is little doubt that this record and subsequent reports from the same source will serve as valuable guides and works of reference. It is a pioneer document and although wholly concerned with the problems of medical education as they affect the Sudan, it indicates certain sound principles which have a wider application and provides information which cannot fail to be of service elsewhere.

Attractive in form, for it is exceptionally well printed and illustrated, it possesses rather a special feature in that there is a résumé of the first report, a useful provision which tells from its beginning the story of an undertaking that marks a new era in the history of the Sudan and the importance of which can scarcely be overrated.

The Medical School, founded as a memorial to Lord Kitchener, was opened by Sir Lee Stack in 1924. Its aim and objects are thus described :

" (*a*) To train carefully selected students of the Gordon Memorial College as doctors in order that they may carry out Medical and Health work in their own country, and thus not only to bring medical help within the reach of the large number of their own countrymen who are out of reach of all medical assistance, but also by preventive measures to raise the general standard of health throughout the country.

" (*b*) As the need arises, to provide post-graduate classes for doctors who have been trained at this School.

" (*c*) By working in close co-operation with the Medical Research Laboratories, to inculcate the spirit of clinical research and to afford facilities for such research to graduates who show this aptitude."

The course is one of four years' duration, followed in every case by a year's work as house-surgeon or house-physician at one of the larger hospitals. It is defined as " a sound scientific but somewhat simplified medical training." The details given certainly confirm this statement. It is hoped that eventually the medical work of the Sudan will be entirely conducted by graduates from this School with the exception of a small cadre of British doctors, specialists in medicine, surgery, public health or medical administration.

Care is taken to limit the number of students. Thus when the School opened ten were admitted. In 1925 there were eight new students. In 1926 no fresh students were enrolled, but in January, 1927, ten new students from the Gordon College commenced the first year course of studies. The students are under close surveillance. Those who fail in their examinations are either referred back for a further course of study in the subjects wherein they have failed to satisfy the examiners or, if deemed wholly unsuitable, are recommended to discontinue their studies and are given Government employment.

Progress has been steady and we learn from the report that in December, 1927, seven of the original ten students who entered the School in 1924 passed the final examination and were granted licences to practise medicine and surgery within the borders of the Sudan. They now hold hospital house appointments. Those of them who exhibit the necessary knowledge, skill and administrative ability will be placed in charge of certain of the smaller hospitals. Those who do not will remain for a further period under supervision at one of the larger hospitals.

An interesting photograph shows a group of these graduates with a Sudanese benefactor of the School. When one remembers that little more than a generation ago the Sudan was in a state of savagery and barbarism this picture is a remarkable testimony to the beneficent work of the civilizing Power.

The method of conducting the examinations is described. In 1926 one assessor was appointed from Egypt, in 1927 both a surgical and a medical assessor were invited to attend. The report of the assessor for 1926 and that of the assessors for 1927 are given as appendices and merit careful attention. They are distinctly favourable, but make certain recommendations for improving both the teaching and the examinations. Those in the 1927 report are as follows :—

" (1) Still greater care to be paid to the practical side of the medica work, especially in regard to Practical Pathology in which we are of the opinion that a supplementary examination should be held at the same time as the other examinations, more particularly in regard to clinical pathological subjects.

" (2) As soon as possible the institution of a Pathological Museum in the new Medical Research Laboratories opposite the School.

" (3) The construction of a Graphic Museum on the model of that now existing at the Bureau of Tropical Research [*sic*] in Endsleigh Gardens. This will be of extreme value, more particularly in the consideration of Tropical Diseases ; and in regard to the encouragement of visual education and memorisation by Sudanese doctors on their periodical return for post-graduate courses of instruction.

" (4) Further instruction in X-ray and radiographic examinations in connexion with clinical subjects."

The new Medical Research Laboratories above mentioned, which take the place of the medical section of the Wellcome Tropical Research Laboratories formerly at the Gordon College, occupy a building in the Hospital enclosure, immediately opposite the Medical School. An aerial photograph shows that the building containing them is identical in external structure with that which houses the School. These two buildings flank the southern end of the long, wide and tree-fringed avenue which runs from the railway station to the palace gardens. It is expected that the

laboratories on their new site will greatly assist the teaching both of pathology and of clinical work.

A School Hostel has also been erected and can accommodate forty students.

At the Gordon College itself preliminary scientific teaching has been given to fourth-year students since January, 1926, so that students starting work at the Medical School are not handicapped by the lack of a scientific vocabulary and the absence of any knowledge of science and its applications.

The Government has provided scholarships for suitable students who, without monetary aid, would be unable to complete their medical studies.

There is a list of the teaching Staff, the members of which are, for the most part, officials of the Sudan Medical Service, but, to ensure continuity of teaching in biology, a lecturer in that subject has been appointed.

The curriculum is described and one of the appendices gives the revised syllabus in detail. This is a very useful addition and will be helpful in other parts of British tropical Africa. It has evidently been the subject of careful consideration and would appear well calculated to fulfil the purpose for which it is intended, the large provision for practical work being specially noteworthy. One small criticism only may be advanced. Under blood work nothing is said about instruction in those fallacies and puzzles which form pitfalls for the unwary and which it is specially necessary to guard against in a country like the Sudan.

The demonstrations given in connexion with the public health course are excellent.

The Report contains an account of the presentation of the diplomas and of the Governor-General's admirable speech on that occasion. It is interesting to note that each student was called on to swear the Oath of Hippocrates, which was recited in Arabic.

Finally there is a financial statement, which recalls a passage from the Assessor's Report for 1926 to this effect :—

> " The foundation of the Gordon Memorial College, the extraordinary advantage of being able to make use of the facilities afforded by the Wellcome Tropical Research Laboratories and the existence of a most skilled and efficient teaching staff in all the scientific subjects already in Khartoum, obviate the necessity of importing expensive professors from abroad, and result in the institution of what is probably the cheapest, consistent with efficiency, School of Medicine in the world."

Mr. O. F. H. Atkey, who signs the report and who is President of the School Council and Director of the Sudan Medical Service, is to be heartily congratulated on this record of work and on the manner in which the Kitchener School of Medicine has developed and is being conducted. He and his colleagues have devoted themselves to the task with a well-regulated enthusiasm which is meeting with its just reward, and anyone who reads this report is likely to agree with the third paragraph under the heading " Dedication," which runs :—

> " Every year that has elapsed since Lord Kitchener's death has served to emphasize his wisdom and foresight in this matter."

Andrew Balfour.

ROCKEFELLER FOUNDATION. **Annual Report 1927.** [VINCENT (George E.).]—pp. ix + 385. With numerous illustrations. Rockefeller Foundation, 61, Broadway, New York.

The disbursements of the Foundation for the year 1927 amounted to 11,223,124 dollars. Most of this expenditure was on multifarious Public Health Services and Medical Education, but under the heading of " Miscellaneous " expenses there is an item of 1,943,005 dollars for the purchase of the Bedford Square site of the University of London, another item of

235,802 dollars for education of nurses, and there are numerous items, to a total sum of 535,739 dollars, for fellowships and grants-in-aid for pure science (anthropology, biology, chemistry, mathematics, and physics).

Of the expenditure on Public Health 1,772,864 dollars represents the cost of the year's activities in the world-wide field of sanitation, and under the heading of Public Health Education (as distinct from medical education) another sum of 1,866,506 dollars stands for building, equipment, endowment, or maintenance of 14 schools and institutes of hygiene in 11 countries of America and Europe and for travelling fellowships in hygiene; and 146,348 dollars is a contribution to the Health machinery of the League of Nations. In the Public Health programme may be noticed, among interesting headings of expenditure. Yellow Fever, 460,728 dollars; Malaria, 288,088 dollars; Hookworm Disease, 322,902 dollars.

The study of yellow fever was continued in West Africa with mingled success and loss; for although the Foundation's Commission at last discovered in the common Rhesus monkey a susceptible animal for laboratory purposes, it suffered a grievous blow by the tragic death, in the hour of triumph, of one of the most brilliant and most competent of its band of workers—the devoted Dr. Adrian Stokes. In the Western Hemisphere yellow fever control was specially called for only in Brazil.

Countries on the west coast of Africa where yellow fever occurred during 1927. The figures within the circles show the number of cases reported in the various areas.

[Reproduced from the *Annual Report of the Rockefeller Foundation for* 1927.]

Antimalaria work—including drainage and other anti-larva operations, and biological and various experimental studies in the field—was assisted, financially or otherwise, in Albania, Argentina, Brazil, Bulgaria, Ceylon, Italy, the Netherlands, Palestine, Porto Rico, Spain (Cáceres), and Venezuela and also in seven States of the Union. It is satisfactory to notice that in Italy the non-spectacular but pregnant study of regions where anopheles mosquitoes are present though malaria may no longer exist has been taken up.

The study, treatment, and control of hookworm disease was either supervised or assisted with funds or personnel in 23 countries, from Colombia

and Paraguay eastwards to the isles of the Pacific. The studies of P. D. Lamson on treatment show that dogs could not stand large doses of carbon tetrachloride on a diet deficient in calcium, and that symptoms produced in dogs in such circumstances were relieved by calcium; also that among the conditions that may render carbon tetrachloride dangerous for man are a recent indulgence in alcohol, a collection of undigested food, and a heavy infestation with ascaris.

The Foundation has widely and consistently sought the development of rural hygiene and sanitation—an enterprise that was the natural outcome of hookworm prevention. Beginning with the control of prevalent and infectious diseases, it aims at higher attainments— nursing, infant welfare, school sanitation, milk supplies, vaccination, health lectures, and all the rest. In 1927 financial support was given to 23 States of the U.S.A. and also in Austria, Brazil, Canada, Ceylon, China, Czechoslovakia, France, Hungary, India, Poland, Porto Rico, Siam, the Straits Settlements, and Yugoslavia for this sort of rural health business. In the Mississippi basin further generous aid was administered through these local rural health centres to sufferers from the great floods.

In other special directions the Foundation has played the part of Proculeius to sanitary engineering works in many States of the Union and of Central America and in Ceylon ; to the establishment and maintenance of public health laboratories in America, the Philippines, and Hungary ; and to the development, organization, or amplification of various public health services in America, Angora, Bulgaria, Denmark, Finland, France, Hungary, and Sarawak.

Expenditure of 4,097,343 dollars was incurred on account of Medical Education, as distinct from public health training, but including minor subjects classed as preliminary medical. Much the greatest part was consumed under headings of building, equipment, maintenance, or endowment of 21 medical schools and colleges in 14 states of Europe, Asia, and America. Among the beneficiaries are the medical schools of Cambridge, Edinburgh, London Hospital, and University College. In addition, help was given to 13 premedical schools and 16 hospitals in China. It is noted that notwithstanding the turmoil in China, some good judges on the spot think that the future of medical education in that country will be serene ; they are pleased with the way in which, after foreigners had been compelled to leave, some of the Chinese doctors managed hospitals and schools and even colleges. The Peking Union Hospital and Medical College being outside the storm centre suffered nothing worse than occasional acute fits of anxiety. In the hospital 4,217 patients were treated and 108,565 out-patients ; there were 224 deaths in hospital, where 114 post-mortem examinations were made—a remarkable contrast to the Chinese experiences recorded by Sir Patrick Manson in the year 1874.

The Foundation financed 111 foreign fellowships to investigators representing 32 countries, from Canada and Peru to Japan and the Philippines. It also provided 127 fellowships and scholarships for China, and contributed to 59 fellowships administered by national Research Councils in America and England. It also gave financial or other assistance to 20 research students attached to institutions in France and Italy and to numerous workers in laboratories in 10 other countries, and it continued to supply medical literature to 260 institutions in 19 countries.

A. Alcock.

# INDEX OF AUTHORS OR SOURCES.

The bracketed abbreviations after the page numbers indicate the subjects.
Page numbers within brackets indicate papers not summarized.

Am. signifies Amoebiasis and Amoebic Dysentery.
Bb. ,, Beriberi.
Bl. ,, Blackwater.
B.R. ,, Book Review.
Chl. ,, Cholera.
C.Bu. ,, Climatic Bubo.
Der. ,, Tropical Dermatology.
Dys. ,, Dysentery (Bacillary and Unclassed).
Ent. ,, Enteric Fevers.
Fev. ,, Fevers.
G.V. ,, Granuloma Venereum.
Hel. ,, Helminthiasis.
Hist. ,, Historical.
H.S. ,, Heat Stroke.
Jaun. ,, Infectious Jaundice.
K.A. ,, Kala Azar.
Lab. ,, Laboratory Reports.
Lep. signifies Leprosy.
Mal. ,, Malaria.
Misc. ,, Miscellaneous.
Myc. ,, Tropical Mycology.
Oph. ,, Tropical Opthhalmology.
Pel. ,, Pellagra.
Pl. ,, Plague.
Rab. ,, Rabies.
R.F. ,, Relapsing Fever and Other Spirochaetoses.
Sp. ,, Sprue.
S.S. ,, Sleeping Sickness.
Tb. ,, Tuberculosis.
Und. ,, Undulant and Abortus Fever.
Y.F. ,, Yellow Fever.
Y. & S. ,, Yaws & Syphilis.
Z. ,, Medical Zoology.


A

Aalsmeer, W. C. & Wenckebach, K. F., 871 (Bb.)
Abadjieff B., 708 (Rab.)
Abbatucci, (321) (Pl.)
Abe, M. & Shimoda, T., 600 (Fev.)
Aben-Athar, J., 157 (Mal.)
Abimélech, R., 861 (K.A.)
Ackert, J. E. & Otto, G. F., 451 (Hel.)
Acosta-Sison, H., 874 (Bb.)
Acton, H. W., 702 *bis* (Der.)
—— & Chopra, R. N., 435 (Bb.)
—— & McGuire, C., 27 (Der.)
—— & Napier, L. E., 70 (K.A.)
—— & Panja, G., 697 (Der.)
Adams, A. R. D., with Yorke, 226 (Am.)
Adler, S. & Theodor, O., 65, 75, 428 (K.A.)
Adova & Sebsnzow, 270 (Z.)
Adowa, A. N. & Ravitsch-Tscherbo, M. I., 814 (Z.)
——, with Sebenzow, 815 (Z.)
——, with Smorodinzew, 814 (Z.)
Advier, M., with Pons, 382 (Misc.)
Agramonte, A., 853 (Y.F.)
Aguessy, C., with Pettit & Stefanopoulo, 850 (Y.F.)
Ahlfeldt, F. E., with Riesman, 745 (Myc.)
Aguiah, A., 633 (Dys.)
Aguilar, R., 161 (Bl.)
Aitken, C. J. H., 957 (Hel.)
Akagi, K., 470 (Hel.)
Akovbian, A. A., 8 (Y. & S.)
Albert, J. & Ocampo, A. N., 869 (Bb.)
—— & Quiason, J. O., 231 (Dys.)
Albertoni, P. & Tullio, P., 441 (Pel.)
Alden, H. S., 402 (Misc.)
Aldershoff, H., 120 (Mal.)
Aleixo, A., 639 (Lep.)
Alexeieff, A., 240 (Dys.), 623 (Am.)
Alfeeva, S., 465 (Hel.)
Allan, W., 316 (Pl.)
Allen, H., 323 (H.S.)
Allison, J. R., 697 (Der.)
— Almeida, F. P., with Campos, 745 (Myc.)
—— & Dos Santos, L. F., 746 (Myc.)
de Almeida, T., (211) (Lep.)
Alvarez Soto, N,. with Mazza, Forté & Arias Aranda, 133 (Mal.)
d'Amato, H. J., 219 (Am.)
Ambrosoli, G. A., 29 (Der.)
Amoss, H. L., 929 (B.R.)
Anderson, C. & de Lagoanère, J. L., 947 (Hel.)
——, with Nicolle, 83 *ter*, 85, 90 *bis*, 91 *ter*, 586, 596 (R.F.)
——, with —— & Colas-Belcour, 89 *bis*, (599) (R.F.)
Anderson, C. M., (197) (Rab.)
Anderson, C. W. & Cowdry, E. V., 728 (Z.)
Anderson, I. R., 437 (Bb.)
Anderson, J., (157) (Mal.)
Anderson, S. M., with Manson-Bahr, 14 (G.V.)
Anderson, T. E., with Levaditi, 593 (R.F.)
Anderson, T. F., 37 (Der.)
Ando, A. & Tohtaro, K., 453 (Hel.)
André, Z., with Labernadie, 651, 978 (Lep.)
Andrei, G., 678 (Chl.)
Andrews, J. M., 77 (K.A.)
d'Anfreville de la Salle (500) (Misc.)
Angel-Marin, R., 948 (Hel.)
Antonelli, G., 133 (Mal.)
Aragão, H. de B., 262 (Z.), 852 (Y.F.), 860 *bis* (K.A.).
Aragonés, F., 428 (K.A.)
Arathoon, 924 (Misc.)
Araujo, C. de S., 985, 988 (Lep.)
de Araujo, E., 612 (Jaun.), (855) (Y.F.)
Araujo, H. C. de S., 426 (K.A.), 648, (654) (Lep.)

Araujo, O. da S., (211) (Lep.)
Araujo, O. S., 652 (Lep.)
Aravantinos, J. D., 96 (R.F.)
Arbeiten ueber Tropenkrankheiten und deren Grenzgebiete, 250 (B.R.)
Archer, with Ledoux & Clerc, 512 (Und.)
Arcos, G., 200, 640 (Lep.)
Arias, F. J., with Vidal Guemes, 36 (Der.)
Arias Aranda, C., with Mazza, Forté & Alvarez Soto, 133 (Mal.)
Arinkin, M., 492 (Misc.)
Arisawa, T., 628 (Dys.)
Arjona, V. R., 35 (Der.)
Arlo, 551 *bis* (Mal.)
Armstrong, C. L., 641 (Lep.)
Arnold, L. 307 (Chl.)
—— & Miller, W. E., 48 (Und.)
Arquivos Indo-Portugueses de Medicina e Historia Natural, Nova Goa, 209 (Lep.)
Artamonow, A. S., 423 (K.A.)
Asada, J., 459, 942 (Hel.)
Ascoli, V., (157) (Mal.)
Ash, J. E., with Reed, 688 (Sp.)
Ashner, M., with Kligler, 850 (Y.F.)
Assam, 193 (Rab.)
Association of Medical Officers of Missionary Societies, 584 (B.R.)
de Assumpção, L., 731 (Z.)
Atkey, O. F. H., 1004 (B.R.)
Audibert, 546, 845 (Y.F.)
Aujeszky, A., 193 *bis* (Rab.)
Auricchio, L., 69 (K.A.)
Austen, E. E., 842 (B.R.)
Avery, S. D., with Bates, 487 (Misc.)
Avezzu, G., (197) (Rab.)
Ayuyao, C. D., 657 (Y. & S.), 994 (Oph.)
de Azevedo, A. P., with Torres, 132 (Mal.)
Aznar, P., 88 (R.F.)

**B**

Bablet, J. & Mesnard, J., 402 (Misc.)
Babonneix, Touraine & Widiez, 203 (Lep.)
Bachman, G. W., 470, 963 (Hel.)
Ba Chow, J., 620 (Am.)
Bacigalupo, J., 722 (Z.), 952, 973 (Hel.)
Bacqué, M., with Mathis & Cazanove, 545 (Y.F.)
Baer, J. G., 952 (Hel.), 1003 (B.R.)
——, with Joyeux, 460 (Hel.)
Baermann, G. & Smits, E., 604, 605 (Jaun.)
—— & Zuelzer, M., 602 (Jaun.)
Bagchi, B. N., with Bose & Dastidar, 857 (K.A.)
Bagchi, K. N., with Ross & Roy, 677 (Chl.)
Bailey, B. N. V., 492 (Misc.)
Bailly, J., with Remlinger, 196 *bis*, 708, 711, 713 (Rab.), 987 (Lep.)
Baily, J. D., with Covell, 127 (Mal.)
Baize, with Morvan & Voizard, 448 (Hel.)
Baker, D. W., with Carpenter, 50 (Und.)
Bakker, C., 478 (Oph.)
Balfour, A., 276 (Z.), 550 (Mal.), 921 (Misc.)
Balfour, M. C., 811 (Z.)
Baliña, P. L., (654) (Lep.)
Ballif, L. & Gherscovici, I., 445 (Pel.)
Banerjee, R. N., 52 (Fev.)
Banerjee, S. C., with Brahmachari, 860 (K.A.)
Banerjee, S. M., 435 (Bb.)
Banerjee, S. N., (313) (Chl.)
Banerji, R. N., 402 (Misc.), 868 (Bb.)
von Bánszky, L. & Kremer, W., (927) (Misc.)
Baranoff, N., with Kislitschenko, 282 (Z.)
Barber, M. A., 808 (Z.), (157) (Mal.)
—— & King, C. H., 805 (Z.)
—— & Komp, W. H. W., 277 (Z.) 917 (Misc.)
——, —— & Hayne, T. B., 124 (Mal.)
——, with Maxcy & Komp, 558 (Mal.)
Bard, L., 156 (Mal.)
Bargehr, P., 203 (Lep.)
Barlovatz, 486 (Misc.)
Barnett, L. E., 461 (Hel.)
Baroni, V., 190 (Rab.)
Barraud, P. J., 286, (737) (Z.)
—— & Covell, G., 814 (Z.)
Barreto, J. de B., with Pinto & Fialho, 829 (Z.)
Basile, C., 265 (Z.)
Basile, G., 131 (Mal.)
Basset, J. & Laborderie, 714 (Rab.)
Bassett-Smith, P., 40 (Und.)
Bastai, P., 511 (Und.)
Basu, C. C., 78 (K.A.)
Basu, N. K., with Chopra & Gupta, 68, 420 (K.A.)
Basu, P. N., 403 (Misc.)
Bates, L. B. & Avery, S. D., 487 (Misc.)
Battaglia, M., (157) (Mal.)
Bauer, J. H., 109 (Jaun.), 848 (Y.F.)
——, & Hudson, N. P., 848 (Y.F.)
——, with Sawyer, 545 (Y.F.)
——, with Stokes & Hudson, 537, 538 (Y.F.)
Baumgartner, E. A., 58 (Sp.)
—— & Smith, G. D., 56 (Sp.)
Bauvallet, H., 848 (Y.F.)
Baylis, H. A., 973 (Hel.)
Bayon, H. P., 641 (Lep.), 836 (Z.)
Beattie, M. V. F., 826 (Z.)
Beatty, N., with Rice, 715 (Rab.)
Bedier, E. & van dam Trinh, 6 (Y. & S.)
Beeson, B. B., 184 (Hist.)
Behdjet, H., 74 (K.A.)
——, with Hodara, 34 (Der.)
Beijnen, G. J. W. K., 370 (Misc.)
de Bellard, E. P., 667 *bis* (C.Bu.)
Bello, C. J., with Chacin Itriago, 831 (Z.)
Belyea, G. N., 42 (Und.)
Bender, W. L., 414 (Misc.)
Benecke, 566 (Mal.)
Bengal, 552 (Mal.)
Bensted, H. J., with Perry, 624 (Dys.)
Bentmann, E., 578 (Mal.)
Benton, D., with Low, 58 (Sp.)
Bequaert, J., 736 (Z.) 935 (Hel.)
Berdnikov, A., 628 (Dys.)
Bernard, E., with Bezançon, 617 (Am.)
—— & Gilbert-Dreyfus, 101 (Jaun.)
Bernard, L. M. J., 946 (Hel.)
Bernard, R., 10 (Y. & S.), 371, (500) (Misc.)
Berri, J. C., 17 (G. V.)
Bersenieff, A. P., 631 (Dys.)
Bertillon, with Gougerot & Roques, 670 (G.V.)
Bertrand, I., with Gosset & Magrou, 751 (Myc.)
Beschkina, R. I., 595 (R.F.)
Beselin, O., 562 (Mal.)
Besredka, A., 490 (Misc.)
Béteau, J. P., 225, 622 (Am.)
Bevan, L. E. W., 826 (Z.)
Beveridge, G. E. G., 586 (R.F.)
Beyers, C. F., 37 5 (Misc.)

Bezançon, F. & Bernard, E., 617 (Am.)
Bezsonova, A., Semikoz, T. & Kotelnikov, G., 674 (Pl.)
Bhattacharyya, A. K., 428 (K.A.)
Bhattacharyya, P., 857 (K.A.)
Bidault, R., with Worms, 479 (Oph.)
Bieloousowa, A. J., 239 (Dys.)
Biglieri, R., Villegas, C. & Oyarzabal, J., 192 (Rab.)
Billimoria, H. S. with Sokhey, Gokhale & Malandkar, 688 (Sp.)
Bird, W., with Sinton & Eate, 140 (Mal.)
Bishop, A., 255 (Z.)
Bishopp, F. C., with Parman, Laake, Cook & Roark, 827 (Z.)
Bjerlow, H. & Liljestrand, G., 94 (R.F.)
Black, E. H., (313) (Chl.)
Blacklock, D. B. & Gordon, R. M., 252 (Z.)
——, Macdonald, G., 901 (Bl.)
Blanc, G., & Caminopetros, J., 73 (K.A.), 630 (Dys.)
Bligh-Peacock, N., 447 (Hel.)
Blondin, 13 (Y. & S.)
——, Wilbert, R. Delorme, M., 189 (Rab.)
Bloom, C. J., 880 (Pel.)
Bloomfield, A. L. & Wyckoff, H. A., 691 (Sp.)
Bogojawlensky, N. A. & Demidowa, A. J., 937 (Hel.)
Boinet & Pieri, J., 532 (Fev.)
Boletin del Instituto de Clínica Quirúrgica, Buenos Aires, 61 (K.A.), 117 (Mal.)
Bombay, 297, 298 (Lab.)
van Bommel, L. B., 35 (Der.)
Boncinelli, U., 519 (Und.)
Bonnel, F., 247 (Dys.)
Bonnin, H., 944 (Hel.)
Borchardt, W., with Mayer & Kikuth, 254 (Z.)
Borel, M., 120 (Mal.), 820, 834 (Z.)
——, & Le-van-An, 554 (Mal.)
Bose, A. N., Dastidar, S. K. G. & Bagchi, B. N., 857 (K.A.)
Bose, J. P., (927) (Misc.)
Bose, K., 571 (Mal.)
Boudreau, 548 (Y.F.)
Bouffard, 18 (C.Bu.), (500) (Misc.), 660 (Y. & S.)
Boulkine, A. K., 139 (Mal.)
Bourova, L. F., 261 (Z.)
Boyce, N., with Garcia, O. & C., & Broun, 23 (Myc.)
Boyd, J. E. M., 913 (Misc.)
Boyd, M. F. & Foot, H., 811 (Z.)
Boyd, T. C. & Roy, A. C., 642 (Lep.)
Bradfield, E. W. C. & Vasudevan, A., 694 (Der.)
Bragina, A., 272 (Z.)
Brahmachari, B. B., 305 *bis*, 306 (Chl.)
Brahmachari, N. & Thakur, H. L. S. L., 435 (Bb.)
Brahmachari, U., 928 (B.R.)
—— & Banerjee, S. C., 860 (K.A.)
—— & Dutt, A. M., 71 (K.A.)
—— & Sen, P. B., 500 (Misc.)
Brandwijk, M. G., with Watt, 412 (Misc.)
Braun, H. & Goldschmidt, R., 488 (Misc.)
Brauner, with Combiesco, 239 (Dys.)
Bray, G. W., 869 (Bb.)
Bray, W. E., with Mulholland 610 (Jaun.)
Brazil, V. & Vellard, J., 731 (Z.)
Brenn, H., with Woskressenski, 572 (Mal.)
Brighenti, D., with Ottolenghi, Brotzu, La Face & Robuschi, 123 (Mal.)
Brill, 110 (Jaun.)
British Empire Leprosy Relief Association: Leprosy Notes, 1003 (B.R.)
British Guiana Medical Annual 1925, 636 (Lep.)
British Medical Journal, 504 (Und.)
Brochard, V., 3 (Y. & S.)
Brocq-Rousseu, Guilliermond & des Cilleuls, 21 (Myc.)
Bronfenbrenner, J. J., 929 (B.R.)
Brosch, J., 714 (Rab.)
Brosius, O. T., (500) (Misc.), 861 (K.A.)
——, Peon, I. E. & Carrol, R. L., 969 (Hel.)
Brotzu, G., with Ottolenghi, La Face, Brighenti, & Robuschi, 123 (Mal.)
Broughton-Alcock, W., 914 (Misc.)
Broun, G. O., with Garcia, O. & C., & Boyce 23 (Myc.)
Brown, F. V. B. & Pullon, E. D., 129 (Mal.)
Brown, H. C., 608 (Jaun.)
—— & Davis, L. J., 106 (Jaun.)
——, with Henry, 635 (Dys.)
Brown, H. W., 464 *bis*, 958 (Hel.)
—— & Cort, W. W., 464 (Hel.)
Browne, D. C., 690 (Sp.)
Browning, C. H., Cohen, J. B., Gulbransen, R., Phillis, E. & Snodgrass, W. R., 94 (R.F.)
—— & Gulbransen, R., 343 (S.S.)
Bruchmann, C. A. & Stábile de Nucci, L., 245 (Dys.)
Brug, S. L., 246 (Dys.), 471 (Hel.), 549 (Y.F.)
—— & van Slooten, J., 278 (Z.)
—— & Walch, E. W., 126 (Mal.)
Brumpt, E., 91 (R.F.), 216 (Am.), 914 (Misc.), 944 (Hel.)
—— & Werblunsky, S., 458, 945 (Hel.)
Brnu, G., with Burnet & Caillon, 953 (Hel.)
Brunner, M., 936 (Hell)
Brussin, A. M. & Rogowa, G. J., 589 (R.F.)
—— & Schapiro, S. L., 590 (R.F.)
Bruynoghe, R., 595 (R.F.)
—— & Cornil, J., 544 (Y.F.)
—— & Dubois, A., 93 (R.F.), 796 (S.S.)
Buchanan, G. S., 845 (Y.F.)
Buchmann, M., 224 (Am.)
Büchner, S., 625 (Dys.)
Buddle, R., (313) (Chl.)
de Buen, S., 88 (R.F.)
Buice, W. A., 558 (Mal.)
Bulletin of the Antivenin Institute of America, Philadelphia, 290, 729, 730 (Z.)
Bulletin Office International d'Hygiène Publique, 843 (Y.F.)
Bulletin de la Société de Pathologie Exotique, 547 (Y.F.)
Burke, A. M. B., with Lambert, 948 (Hel.)
Burke, E., 893 (Bl.)
Burnet, 516 (Und.)
Burnet, E., 713 (Rab.)
——, Caillon, L. & Brun, G., 953 (Hel.)
—— & Olmer, D., 530 (Fev.)
Butjagina, A. P., with Lisgunova, 406 (Misc.)
Butler, C. S. & Peterson, E., 1 (Y. & S.), 125 (Mal.)
Butler, G. G., 295 (Lab.)

C


Cabarrou, F. C., with Davis & Laino, 125 (Mal.)
Cade, Morenas & Jeannin, 939 (Hel.)
Caffrey, P. J., 931 (Hel.)
Caillon, L., with Burnet, & Brun, 953 (Hel.)
Caius, J. F., Kamat, S. A. & Naidu, B. P. B., 319 (Pl.)
—— & Mhaskar, K. S., 410 (Misc.)
Calcutta, 366 (Misc.), 755 (B.R.)
Caldwell, F. C., 450 (Hel.)
—— & Caldwell, E. L., 959 (Hel.)
Callender, G. R., 183 (Hist.)
Cameron, W. M., 463 (Hel.)
Caminopetros, J., with Blanc, 73 (K.A.), 630 (Dys.)
Campbell, G. J. & Patel, G. P., 404 (Misc.)
Campbell, M. F., 669, 670 (G.V.)
van Campenhout, J., 846 (Y.F.)
Camplani, M., (989) (Lep.)
Campos, E. de S., 356, 802 (S.S.)
—— & de Almeida, F. P., 745 (Myc.)
Canciulesco, M., Herman, L. & Hirsch, R., 558 (Mal.)
Canis, J., 479 (Oph.)
Cannell, D. E., 855 (Y.F.)
Cannon, P. R., Taliaferro, W. H. & Dragstedt, L. R., 836 (Z.)
Čâpek, A., 257 (Z.)
Capistrano Pereira, S., (635) (Dys.)
de Capua, F., (973) (Hel.)
Cardamatis, G. P., 137, 154 (Mal.)
Carman, J. A., 318 (Pl.)
——, with Daubney, 932 (Hel.)
Carmichael, E. B., 291 (Z.)
Caro, J., 473 (Hel.)
——, with Marchoux, 978 (Lep.)
Carozzi, L., 968 (Hel.)
Carpenter, C. M. & Baker, D. W., 50 (Und.)
—— & Parshall, C. J., 49 (Und.)
Carpenter, G. D. H., 332 (S.S.), 891 (Bl.)
Carpi, U., 110 (Jaun.)
Carr, H. P. & Clarke, J. L., 124 (Mal.)
Carrel, A., 929 (B.R.)
Carrieu, M. & Rambault-Simon, 724 (Z.)
Carrión, A. L., 829 (Z.)
Carrol, R. L., with Brosius & Peon, 969 (Hel.)
Carter, H. F., 80 (B.R.)
————————with Newstead, 804 (Z.)
de Carvalho, O., 963 (Hel.)
Casas, U., (973) (Hel.)
Casazza, R., 705 (Der.)
Cash, J. R. & Hu, C. H., 71 (K.A.)
——, with Hu, 70 (K.A.)
Castagna, P., (579) (Mal.)
Castellani, A., 28 (Der,), 230 *bis*, 236 (Dys.), 742 (Myc.)
Castellano, T. & Orgaz, J., 957 (Hel.)
Castelli, A., with Petragnani, 275 (Z.)
Casteran, R., with Fiessinger, 618 (Am.)
Castex, M. R., González, H. & Poletti, R. A., 892 (Bl.)
Castiglioni, A., 154 (Mal.)
de Castro, A. B., 1000 (Misc.)
—— & Deuskar, V. N., 631 (Dys.)
de Castro, A. M., 742 (Myc.)
Castronuovo, G., 533 (Fev.)
Catanei, A., with Montpellier, 24 (Myc.), 692, 695 (Der.)
——, with —— & Clapier, 30 (Der.)
——, with —— & Colonieu, 392 (Misc.), 740 (Myc.)
Catanei, A., with Sergent, Ed. & Et. 727 (Z.)
——, with ——— & Sénevet, 552 (Mal.)
Cauchemez, 955 (Hel.)
Cawston, F. G., 528, (535) (Fev.), 736 (Z.), 913 (Misc.), 942, 943 *ter* (Hel.)
Cazanove, F., with Mathis & Bacqué, 545 (Y.F.)
Cazenavette, L. L., 203 (Lep.)
Celidonio, C., 741 (Myc.)
Cerruti, C., 47, 48 (Und.)
—— & Reitani, V., 110 (Jaun.)
Cerruti, C. F., 518 (Und.)
Césari, E., 505 (Und.)
Ceylon, 570 (Mal.)
Chacin Itriago, L. G., 672 (Pl.), 831 (Z.)
—— & Bello, C. J., 831 (Z.)
Chagas, C., 789 (S.S.)
Chagas, E., 789 *ter* (S.S.)
Chalam, B. S., 918 (Misc.)
Champagne, R., with Sénevet, 940 (Hel.)
Chan, Y. P. & Oldt, F., 478 (Oph.)
Chang, H. L., with Meleney & Lee, 268 (Z.)
Chandler, A. C., 932 (Hel.)
Chao, H. A., 240 (Dys.)
Chapman, L. S., 432 (Bb.)
Charrier, H., 281 (Z.)
Chatterjee, B. K., 634 (Dys.)
Chatterjee, K. N., 426 (K.A.)
Chatterjee, N., (579) (Mal.)
Chatterjee, R. P., 63 (K.A.)
Chatterji, S. P., with Muir, 649 (Lep.)
Chaudhuri, S. G., with Chopra, 857 (K.A.)
Chell, G. R. H., 890 (Bl.)
Cherefeddin, 133 (Mal.)
Cherefeddin, O., 621 (Am.)
Chesterman, C. C., 10 (Y. & S.)
—— & Todd, K. W., 342 (S.S.), 659 (Y. & S.)
Chevallier, P., with Emile-Weil & Flandrin, 164 (Myc.)
—— & Lévy,G., 803 (S.S.)
Chodukin, N. I., (292), 821, 726 (Z.)
—— & Schewtschenko, F. I., 76 (K.A.)
Chodukin, N. J. & Lisowa, A. I., 128 (Mal.)
Choksy, N. H., (321) (Pl.)
Chopra, R.N., 412 (Misc.)
——, with Acton, 435 (Bb.)
—— & Chaudhuri, S. G. 857 (K.A.).
——& David, J. C., 415 (Misc.)
——& Gupta, C. R. D., 423 (K.A.)
——Gupta, J. C., & Basu, N.K., 68, 420 (K.A.)
——— with ———, & David, J. C. 67 (K.A.)
———,———,———, & Ghosh, S., 411 (Misc.)
———, ———, Mullick, M. N. & Gupta, A.K.D., 858 (K.A.)
Choremis, K., with Tsakalotos, 562 (Mal.)
Chorine, V., 266 (Z.)
Chowdhury, K. L., with Strickland, 267 (Z.)
Christophers, S. R., Sinton, J. A. & Covell, G. 267 (Z.)
Christopherson, J. B., 694 (Der.), 943 (Hel.)
Chueca, F., 615 (Am.)
Ciavaldini, J., 162 (Bl.)

Ciclescu-Mavromati, M., 939, 940 (Hel.)
Cieufuegos, J. M. A., with Legendre, 144 (Mal.)
Cilento, R. W., 97 (Fev.), 290 (Z.), 941 (Hel.)
Clapier, P., with Montpellier & Catanei, 30 (Der.)
Clark, C. P., 990 (Oph.)
Clark, F., 60 (K.A.)
Clark, O. (157), (Mal.)
Clark, T., 285 (Z.), 514 (Und.), 975 (Lep.)
Clarke, J. L. with Carr, 124 (Mal.)
Clearkin, P. A., 561 (Mal.)
Cleland, J. B., 32 (Der.)
Clerc, with Ledoux & Archer, 512 (Und.)
Cleveland, L. R., 835 (Z.), 922 (Misc.)
Clevers, M., 372 (Misc.)
——, with Van den Branden & Moreels, 341 (S.S.)
Cluver, E., 194 (Rab.), 963 (Hel.)
Cobb, W. G., 788 (S.S.)
Cochrane, R. G., 208, 638 (Lep.)
Codvelle, Grandclaude & Vanlande, 941 (Hel.)
——, with Pilod & Hugonot, 453 (Hel.)
Coenaes, J., 486 (Misc.)
Cohen, with Gougerot, (500) (Misc.)
Cohen, J. B., with Browning, Gulbransen, Phillis & Snodgrass, 94 (R.F.)
Colas-Belcour, J., (599) (R.F.)
——, with Nicolle & Anderson, 89 *bis* (599) (R.F.)
Cole, J. C., 215 (Am.)
Coleman, R. B., 457 (Hel.)
Colonieu, L., with Montpellier, 392 (Misc.)
——, with —— & Catanei, 392 (Misc.), 740 (Myc.)
Combiesco, D. & Brauner, 239 (Dys.)
Comer, M. C., 282 (Z.)
Comyn, K. (157), (Mal.)
Connal, A., 162 (Bl.) 294 (Lab.)
—— & Paisley, J. C., 672 (Pl.)
Connal, S. L. M. S., 274 (Z.)
Connell, W. K., 336 (S.S.), 384 (Misc.)
Conquest, C. N., with Wats & Loganadan 631 (Dys.)
Coogle, C. P., 128 (Mal.)
Cook, F. C., with Parman, Bishopp, Laake & Roark, 827 (Z.)
Cooke, F. H., 976 (Lep.)
Cooke, W. E., 688 (Sp.), 997 (Misc.)
——, with Low, 59 (Sp.)
Cool, P., 470 (Hel.)
Coonoor, Southern India, 193 (Rab.)
Cooper, G. F., 923 (Misc.)
Cordes, W., 1 (Y. & S.), 566 (Mal.)
Cordier, G., 353 (S.S.)
Cornil, J., with Bruynoghe, 544 (Y.F.) (Misc.)
Cornwell, M. A., with Nye & Zerfas, 998 (Misc.)
Coro, A. J., (500) (Misc.)
Corson, J. F., 294 (Lab.), 658, 842 (Y. & S.), 788 (S.S.)
Cort, W. W., 946 (Hel.)
——, with Brown, 464 (Hel.)
da Costa, P., 2 (Y. & S.)
da Costa, S. F. G., (973) (Hel.)
——, with Rebello & Rico, 464, 938 *bis*, (974) *ter* (Hel.)
Coutelen, F., 463, 973 (Hel.)
Covell, G., 267, 818, 820 (Z.)
—— & Baily, J. D., 127 (Mal.)
Covell, with Barraud, 814 (Z.)
——, with Christophers & Sinton, 267 (Z.)
——, with Sinton, 271 (Z.)
Coventry, F. A. & Taliaferro, W. H., 937 (Hel.)
Cowdry, E. V., 929 (B.R.).
——, with Anderson, 728 (Z.)
Cox, W. C. & Jacob, J. E., 496 (Misc.)
Craig, C. F., 228, 623 (Am.)
Craighead, A. C. & Das, S., 822 (Z.)
Cram, E. B., 953 (Hel.)
Crawford, T. S. B., 119 (Mal.)
Crawford, V. J., 553 (Mal.)
Croste, R., 940 (Hel.)
Crutchfield, E. D., 881 (Pel.)
Cruz, M. C., 650, 985 (Lep.)
——, Lara, C. B. & Paras, E. M., 979 (Lep.)
Cruz, Jr., O., with de Faria, 355 (S.S.)
da Cunha, A. M., 718 (Z.)
—— & Muniz, J., 54, 523 (Fev.), 264 *bis*, 725 *bis* (Z.)
Cunningham, J., Nicholas, M. J. & Lahiri, B. N., 190 (Rab.)
Curry, D. P., 817 (Z.)
Cushing, E. H., 110 (Jaun.)
van Cutsem-Franco, A., 621 (Am.)

## D

Dahlmann, F., 33 (Der.)
Dalal, P. A. & Madon, E. E., 918 (Misc.)
Dallas, E. D., 287 (Z.)
Damboviceanu, A., with Ionesco-Mihaiesti, 627 (Dys.)
Dang-Huu-Chi, with Dorolle, 130 *bis* (Mal.)
Darker, G. F., 139 (Mal.), 139 (Jaun.)
Das, S., with Craighead, 882 (Z.)
——, with Shortt & Lal, 419 (K.A.)
Dastidar, S. K. G., with Bose & Bagchi, 857 (K.A.)
Daubney, R. & Carman, J. A., 932 (Hel.)
Davenport, R. C., 480 (Hel.)
Davey, J. B., 620 (Am.)
David, 794 (S.S.)
David, J. C., with Chopra, 415 (Misc.)
——, with —— & Gupta, 67 (K.A.)
——, with ——, —— & Ghosh, 411 (Misc.)
Davis, L. J., with Brown, 106 (Jaun.)
Davis, N. C., 819 (Z.), 971 (Hel.)
——, Cabarrou, F. C. & Laino, F., 125 (Mal.)
—— & Shannon, R. C., 819 (Z.)
——, with ——, 817 (Z.)
——, with —— & del Ponte, 816 (Z.)
Dawson, A. S., 673 (Pl.), 677 (Chl.)
De, P., with Dixon, (500) (Misc.)
Debré, R., Marie, J. & Giroud, P., 509 (Und.)
Dedichen, H. H., 998 (Misc.)
De la Barrera, J. M. & Riva, A., 450 (Hel.)
Delamare, G. & Gatti, C., 697 (Der.)
Delanoë, E., 647 (Lep.), 992 (Oph.)
Delanoë, P., 401 (Misc.)
Delbet, P., 19 (C.Bu.)
Del Negro, C., 277 (Z.)
Delorme, M., with Blondin & Wilbert, 189 (Rab.)
——, with Levaditii, 350, 797 (S.S.)
——, with Troisier, Deschiens & Limousin, 963 (Hel.)
——, with Wilburt, 102, 611 (Jaun.)

Del Ponte, E., with Shannon, 125 (Mal.)
Demidowa, A. J., with Bogojawlensky, 937 (Hel.)
Denney. O. E., 179 (Hist,), 637 (Lep.)
—— & Wooley, J. C., 641 (Lep.)
Denny, C. R. & Nicholls, L., 382 (Misc.)
Denton, J., 887 (Pel.)
Deschiens, R., Limousin, H. & Troisic, J., 265 (Z.)
——, with Troisier, Limousin & Delorme, 963 (Hel.)
Des Cilleuls, L., with Brocq-Rousseu & Guilliermond, 21 (Myc.)
Des Ligneris, M., 692 (Der.)
Despontin, A. E., 192 (Rab.)
Destefano, F. & Vaccarezza, R. F., 667 (C.Bu.)
Deuskar, V. N., 608 (Jaun.)
——, with de Castro, 631 (Dys.)
Deutsch, D., 615 (Am.)
Dévé, F., 462, 955, 956 *bis* (973) (Hel.)
—— & Lacroix, A., 956 (Hel.)
—— & Rolland, P., 956 (Hel.)
Deveze, P., with Margarot, 982 (Lep.)
Dew, H. R., 955 (Hel.)
Diamantis, 944 (Hel.)
Dickie, W. M., 314 (Pl.)
Dietel, F., 43 (Und.)
Dikmans, G., 450 (Hel.)
Dimitrieva, M. A., with Kopp & Zwetkowa-Pirogovskaja, 934 (Hel.)
Dinánah, T., 177 (Hist.)
Dixon, W. E. & De, P., (500) (Misc.)
Dobell, C., 227 (Am.)
Dodd, K. & Wilkinson, S. J., 322 (H.S.)
Donatien, A., with Parrot, 75 (K.A.)
——, with —— & Lestoquard, 427 (K.A.)
Donnison, C. P., 394 (Misc.)
Doorenbos, W., 315 (Pl.)
Dopter, (635) (Dys.)
Doré, G. R., 157 (Mal.), 399 (Misc.)
Dorolle, P., 554 (Mal.)
—— & Dang-Huu-Chi, 130 *bis* (Mal.)
Dos Santos, L. F., with de Almeida, 746 (Myc.)
Dostrowsky, A., (78) (K.A.)
Doubrovinsky, S. B., Kranzfeld, A. M., Rosenfeld, V. D. & Salamandra, E. G., 934 (Hel.)
Doubrow, with Garin & Mounier, 936, 966, 970 *bis* (Hel.)
Dove, W. E., with White, 34, 701 (Der.)
Dragstedt, L., with Cannon & Taliaferro, 836 (Z.)
van Driel, B. M., 482 (Oph.), 535 (Fev.), 655 (Y. & S.)
Duarte, J. G., 25 (Myc.)
Dubois, A., with Bruynoghe, 93 (R.F.), 796 (S.S.)
Ducros, with Girard, 987 (Lep.)
Duff, D., 666 (C.Bu.)
Duggan, J. N., 481 (Hel.), 990 (Oph.)
Duke, H. L., 759, 785 (S.S.), 905 (Lab.)
—— & van Hoof, L., 776 (S.S.)
——, with Kleine & van Hoof, 781 (S.S.)
Dunham, G. C., 912 (Misc.)
Dunn, L. H., 273 *ter*, 288, 808 (Z.)
Dunn, T. B., 214 (Am.)
Dunning, F. & Macht, D. I., 347 (S.S.)
Dupont, 844 (Y.F.)
Durand, P. & Lumbroso, U., 475 (Oph.)
Durante, G., 739 (Myc.)
Dürck, H., 562 (Mal.)
Durieux, C., with Mathis & Ewstifeief, 87 (R.F.)
Dusseldorp, M., 479 (Oph.)
Duthu, L., with Espié, 964 (Hel.)
Dutt, A. M., with Brahmachari, 71 (K.A.)
Dutta, J. C., 961 (Hel.)
Duwez, J., with Houssian, 222 (Am.)
Duyck, 393 (Misc.)
Dyar, H. G. & Núnez Tovar, M., 266 (Z.)
Dye, W. H., 331 (S.S.)

## E

Eate, S. N., with Sinton & Bird, 140 (Mal.)
Ebert, M. K., 160, 900 (Bl.)
Edington, A. D., 54 (Fev.)
Edwards, F. W., 819 (Z.)
—— & Given, D. H. C., 809 (Z.)
Eggleston, C., with Hunt, McCann, Rowntree & Voegtlin, 500 (Misc.)
Ehara, I., 983 (Lep.)
Elbert, B., Jowelew, B. & Ssutin, J., 196 (Rab.)
Elschnig, A., 993 (Oph.)
Elvehjem, C. A., & Waddell, J., 498 (Misc.)
Emile-Weil, P., 749 (Myc.)
——, Chevallier, P. & Flandrin, P., 164 (Myc.)
——— & Grégoire, R., 399 (Misc.)
——, —— & Flandrin, 163, 164 (Myc.)
——, with —— & ——, 163 (Myc.)
Engelhardt, W. E. & Ray, J. C., 311 (Chl.)
Enrico, C., 46 (Und.)
Enzer, A. J., 782 (S.S.), 972 (Hel.)
Erber, M., 470 (Hel.)
Escalar, G., 156 (Mal.)
——, with Pecori, 156 (Mal.)
Escomel, E., 36 (Der.), 258 (Z.)
Espié, A., 932 (Hel.)
—— & Duthu, L., 964 (Hel.)
Esposito, A., 41 (Und.)
Esquier, C. A., 599 (R.F.)
Essex, H. E., 460 (Hel.)
Eubanas, F., 649 (Lep.)
——, with Lara & de Vera, 983 (Lep.)
——— & de Vera, B., 206 (Lep.)
Evans, A. M., 80 (B.R.), 817 (Z.)
Evans, E. W., with Severn, 625 (Dys.)
Ewing, H. E., 804 (Z.), 993 (Oph.)
Ewstifeief, C., with Mathis & Duriex, 87 (R.F.)
Eysell, A., (737) (Z.)

## F

Fabre, H., 569 (Mal.)
Fabris, S., 421 (K.A.)
Faderin, K., 243 (Dys.)
Fairbairn, H., 457 (Hel.)
Fairbrother, R. W., 680 (Chl.)
Fairley, N. H., 56 (Sp.), 944 (Hel.)
—— & Williams, F. E., 458 (Hel.)
Falcão, E. de C., 283 (Z.)
Falcão, T., (579) (Mal.)
Falleroni, D., 123 (Mal.), 269 (Z.)
Far Eastern Association of Tropical Medicine, 329 (B.R.)

de Faria, G. & Cruz, Jr. O., 355 (S.S.)
Farjot, A., with Melnotte, 100 (Jaun.)
Farnam, W., with Foster, 218 (Am.)
Faure-Beaulieu, M., 617 (Am.)
Faust, E. C., 290, 716 (Z.), 941 (Hel.)
Favilli, G., 518 (Und.)
Favre, M., 19 (C.Bu.)
——, with Tixier, Morenas & Petouraud, 217 (Am.)
Feder, J. M., 216 (Am.)
Federated Malay States, 119 (Mal.),
——— Ann. Rep. Inst. Med. Res., 300 (Lab.)
Feiler, M., (927) (Misc.)
Feldt, A., 649, 986 (Lep.)
—— & Schott, A., 405 (Misc.)
Feliciano, R. T., with Vedder, 863 (Bb.)
Fermi, C., 188, 711 (Rab.), 572, (579) (Mal.)
Fernandes, E., with Rezende, 664 (Y. & S.)
Fernández Martínez, F., 77, 426 (K.A.)
—— & García del Diestro, J., 77 (K.A.)
Fernando, A. S., 484 (Oph.)
Fernando, J. S., 308 (Chl.)
Ferrán, J., (157) (Mal.)
Ferreira, M.J., 882 (Pel.)
Fialho, A., with Pinto & Barreto, 829 (Z,)
Field, J. W., with Fletcher, 52 (Fev.)
Fielding, J. W., 830 (Z.)
Fiessinger, N. & Casteran, R., 618 (Am.)
Filippi, J., with Pavlovsky & Mahieu, (973) (Hel.)
Findlay, G. M., 884 (Pel.)
Finzi, G., 195 (Rab.)
Fischer, O., 335 (S.S.), 616 (Am.), 665 *bis* (C.Bu.)
—— & Weise, W., 135 (Mal.)
Fisher, A. B., with Taliaferro, W. H., & Taliaferro, L., 149 (Mal.)
Flandrin, P., with Emile-Weil & Chevallier, 164 (Myc.)
——, with —— & Grégoire, 163, 164 (Myc.)
——, with Grégoire & Emile-Weil, 163 (Myc.)
Fleming, W. D., 496 (Misc.)
Fletcher, W., 300 (Lab.), 606 (Jaun.)
—— & Field, J. W., 52 (Fev.)
—— & Kanagarayer, K., 134 (Mal.)
——, with Stanton, 382 (Misc.)
——, with —— & Symonds, 382 (Misc.)
Florentin, P., with Spillmann & Kissel, 981 (Lep.)
Foá, R., 992 (Oph.)
Fonseca, A., 957 (Hel.)
da Fonseca, O., 10 (Y. & S.), 260 (Z.), 549 (Y.F.)
—— & Leão, A. E. de A., 31, 693, 696 *bis* (Der.), 25, 741, 743 *quat.*, 744, 745 (Myc.)
——, —— & Penido, J. C., 695 *bis* (Der.)
Fontanel, J. P. J. & Melnotte, P. E. M., 222 (Am.)
Foot, H., with Boyd, 811 (Z.)
Forster, W. H. C., 317 (Pl.)
Forté, E., with Mazza, Alvarez Soto & Arias Aranda, 133 (Mal.)
Fortier, L. A. & Gately, T. T., 958 (Hel.)
Fortuyn, A. B. D., 254 (Z.)
Foster, J. H., 497 (Misc.)
——, & Farnam, W., 218 (Am.)
——, with Zia, (501) (Misc.)
Fourche, J. A., 342 (S.S.)
Fourquier, G., with Grasset, 618 (Am.)
Fowler, H. P., 219 (Am.)
Fowler, J. K., 112, 850 (Y.F.)
Fox, F. W., 246 (Dys.)
França, 456 (Hel.)
Franchini, G., 123 (Mal.), 726 (Z.)
Francis, E., 253 (Z.)
Frantzen, W., 829 (Z.)
Fraser, N.D., 228 (Am.)
Frasey, V., with Pettit & Stefanopoulo, 851 (Y.F.)
Frei, W., 19, 666 (C.Bu.)
—— & Hoffmann, H., 18 (C.Bu.)
Freire Muñoz, C., 194 (Rab.)
Frendo, G.A., 636 (Lep.)
Friede, K.A., with Kritschewski, 598 (R.F.)
Friendenreich, V., 679 (Chl.)
Fuchs, E., 992 (Oph.)
Fujimori, K., 679 (Chl.)
Fukushima, B. & Hosoya, S., 106 (Jaun.)
Furutama, T., with Morishita, 146 (Mal.)
——, with —— & Namikawa, 146 (Mal.)

## G

Gage, A., 38 (Der.), 381 (Misc.)
Galal Aboul Seoud, 479 *bis* (Oph.)
Galbreath, W.R. & Weiss, C., 747 (Myc.)
Gallais, G., (157) (Mal.)
Galliard, H., 810 (Z.)
—— & Robles, R., 524 (Fev.)
Galli-Valerio, B., 710 (Rab.)
Gammel, J.A., 29 (Der.)
Gamna, C., 751 (Myc.)
Garcia, O., Garcia, C. Boyce, N. & Broun, G. O., 23 (Myc.)
Garcia del Diestro, J., with Fernández Martinez, 77 (K.A.)
Garcia de San Martin, H., with Varela & Rubino, 724 (Z.)
Garcin, R., with Loeper, 957 (Hel.)
Garin, C., Doubrow, S. & Mounier, H., 936, 966, 970 *bis* (Hel.)
Garnham, P. C. C., 830, 834 (Z.)
Garrison, C. W. 882 (Pel.)
Garrone, E., (973) (Hel.)
Garzon, R., 33 (Der.)
Gasasianz, A. A., 578 (Mal.)
Gately, T. T., with Fortier, 958 (Hel.)
Gatti, C., with Delamare, 697 (Der.)
Gaujoux, E. & Stodel, G., 599 (R.F.)
Gay, D. M. & Sellards, A. W., 104 (Jaun.)
Gehrcke, A., 215 *bis* (Am.)
Gelonesi, G., 31, 700 (Der.)
Geneeskundig Tijdschrift voor Nederlandsch-Indië, 301, 302 (Lab.)
Gerlach, F., 187 (Rab.)
Gerschenowitsch, R. S., 422 (K.A.)
Gherscovici, I., with Ballif, 445 (Pel.)
Ghosh, S., with Chopra, Gupta & David, 411 (Misc.)
Giacardy, 976 *bis* (Lep.)
Gibson, E., 15, 669 (G.V.)
Giemsa, G. & Mayeda, S., 346 (S.S.)
Giglioli, G., 467 (Hel.)
Gilbert, M. J., with Rosenholz, 86 (R.F.)
Gilbert-Dreyfus, with Bernard, 101 (Jaun.)
Gilks, J. L., 857 (K.A.)
Gill, C. A., 126 (Mal.), 753 (B.R.), 969 (Hel.)
Gillespie, E. B., with Hahn, 387 (Misc.)
Gillet, with Lomry, 491 (Misc.)

Girard, G., 317, 676 (Pl.)
—— & Ducros, 987 (Lep.)
—— & Robic, J., 650 (Lep.)
Giroud, P., with Debré & Marie, 509 (Und.)
Gittings, J. C. & Waltz, A. D., 257 (Z.)
Given, D. H. C., 911 (Misc.)
——, with Edwards, 809 (Z.)
Gladin, 832 (Z.)
Glaser, R. W., 929 (B.R.)
Glasunov, M., with Smirnov, 959 (Hel.)
Gloster, T. H., 193 (Rab.)
Glover, W. E., 219 (Am.)
Glusmann, M., 709 (Rab.)
——, Kowalewa, O. & Predtetschenskaja, L., 711 (Rab.)
—— & Schmidt-Weyland, P., 711 (Rab.)
—— & Solowjowa, J., 710 (Rab.)
Gnanadikam, G. J., 481 (Hel.)
Godinez Gutierrez, J., (635) (Dys.)
Godoy, A. & Lacorte, J. G., 728 (Z.)
Gokhale, S. K., with Sokhey, Malandkar & Billimoria, 688 (Sp.)
Goldberger, J., 880 (Pel.)
—— & Sydenstricker, E., 439 (Pel.)
—— & Wheeler, G. A., 444, 445 (Pel.)
——, ——, Lillie, R. D. & Rogers, L. M., 886 *bis* (Pel.)
Goldschmidt, R., with Braun, 488 (Misc.)
Goldsworthy, N. E., 954 (Hel.)
Gomes, J. M., 641 (Lep.)
——, Leitão, C. A. P. & Wancolle, A., 643 (Lep.)
González, H., with Castex & Poletti, 892 (Bl.)
González-Martinez, I., 948 (Hel.)
Gonzalez Olaechea, M., 157 (Mal.)
Goodpasture, E. W., 929 (B.R.)
Gordon, G. A. C., 924 (Misc.)
Gordon, R. M., with Blacklock, 252 (Z.)
Gori, P., 588 (R.F.)
Gosset, A., Bertrand, I. & Magrou, J., 751 (Myc.)
Gougerot, 578 (Mal.)
——, Bertillon & Roques, A., 670 (G.V.)
Gougerot, H., 641 (Lep.)
—— & Cohen, (500) (Misc.)
Gough, L. H., 288 (Z.)
Gourvitch, I., 614 (Am.)
Gouzien, P., 111 (Y.F.)
Grace, A. W., 405 (Misc.)
Graf, H. & Müller, I., 418 (Misc.)
Graham, G. S. & MacCarty, S. H., 388 (Misc.)
Graham, J. D., 426 (K.A.), 433 (Bb.), 652 (Lep.)
Graham, J. W., 658 (Y. & S.), (157) (Mal.)
Grandclaude, with Codvelle & Vanlande, 941 (Hel.)
Grassberger, A. (599) (R.F.)
Grasset, E. & Fourquier, G., 618 (Am.)
Gräub, E., 50 (Und.)
Gravellat, 372 (Misc.)
Gray, G. M., 416 (Misc.)
Green, F. N., 253 (Z.), 709 (Rab.)
Grégoire, R., with Emile-Weil, 399 (Misc.)
——, —— & Flandrin, P., 163 (Myc.)
——, R., with —— & ——, 163, 164 (Myc.)
Greval, S. D. S., 651 (Lep.)
Grey, E. C., 865 (Bb.)
Griffitts, T. H. D., 272, 277 (Z.)
Gromier, E., 38 (Der.)
Grubbs, S. B., (321) (Pl.)
Gueidon, E. & Pons-Leychard, A., 73 (K.A.)
Guelmino, D., 813 (Z.)
Guerra, A. R., 692 (Der.)
Guillerm, J., with Morin, 628 (Dys.)
Guilliermond, with Brocq-Rousseu & des Cilleuls, 21 (Myc.)
Guimaraes, F., 451 *bis* (Hel.)
Gulbransen, R., with Browning, 343 (S.S.)
——, with ——, Cohen, Phillis & Snodgrass, 94 (R.F.)
Gupta, A. K. D., 259 (Z.)
——, with Chopra, Gupta J. C., & Mullick, 858 (K.A.)
Gupta, B. M., with Sarcar, 437 (Bb.)
Gupta, B. M. D., with Knowles, 725 (Z.)
Gupta, C. C. D., (579) (Mal.)
Gupta, C. R. D., with Chopra, 423 (K.A.)
——, with Napier, 858 (K.A.)
Gupta, J. C., with Chopra & Basu, 68, 420 (K.A.)
——, with —— & David, 67 (K.A.)
——, with ——, —— & Ghosh, 411 (Misc.)
——, with ——, Mullick & Gupta, A.K.D., 858 (K.A.)
——, with Megaw, 364 (Misc.)
Gupta, N. R. S., 434 (Bb.)
Guthrie, N., 462 (Hel.)
Gutzevitch, A., with Magnitsky, 823 (Z.)
Gwélessiany, J., 92 (R.F.)

## H

Haberfeld, W., 620 (Am.)
Habs, H., 513 (Und.)
Hachiya, T. & Takahashi, M., 679 (Chl.)
Hackett, L. W., with Missiroli, 122 (Mal.)
Haddon, E. H., 517 (Und.)
Hadfield, G., with White, 442 (Pel.)
Hahn, E. V., 1001 (Misc.)
—— & Gillespie, E. B., 387 (Misc.)
—— & Hirsch, 310 (Chl.)
Haim, with Much & Peemöller, 291 (Z.)
Hakushi, R., with Koidzumi, 268 (Z.)
Haldane, J. S., 889 (H.S.)
Halder, K. C., with Napier, 62 (K.A.)
Hall, E. R., 737 (Z.)
Hall, I. C. & Whitehead, R. W., 409 (Misc.)
Hall, W. W. & Wakefield, E. G., 322 (H.S.)
——, with ——, 322 (H.S.)
Halloran, C. R., 694 (Der.)
Hamburger, C., 994 (Oph.)
Hamid, M., 961 (Hel.)
Hamilton, G. R., 700 (Der.)
Hamlyn-Harris, R., 805 (Z.)
Hance, J. B., 242 (Dys.)
Hanschell, H. M., 17 (C. Bu.), 550 (Mal.), 663 (Y. & S.)
Hansen, I., 290 (Z.)
Hardwicke, C., 972 (Hel.)
Hardy, A. V., 503 (Und.)
Harefuah, (247 *sex*) (Dys.)
Harlé, G., 949 (Hel.)
Harnett, W. L., 463 (Hel.)
Harris, R. H. T. P., 828 (Z.)
Harrold, C. C., 693 (Der.)
Harston, G. M., 991 (Oph.)
Hartman, E., 726 (Z.)
den Hartog, B. J. C., 37 (Der.)
Hasegawa, M., 3 (Y. & S.), 26 (Der.)

Hashimoto, T., Ishibashi, T., Iwatake, H. & Ota, M., 28 (Der.)
Hasson, J., with Little, 211 (Lep.)
Hattori, R., 576 (Mal.)
Hayashi, K. & Igari, D., 453 (Hel.)
Hayes, T. H., 970 (Hel.)
Hayne, T. B., with Barber & Komp, 124 (Mal.)
Health Bulletin, No. 13, Malaria Bureau No. 5, (292) (Z.)
Health, Melbourne, (684) (Chl.)
Hees, H., 378 (Misc.)
Hegner, R., 167 (B.R.), 254, 255, 260, 265, 718, 722, 723 (Z.)
—— & Manwell, R. D., 137 (Mal.)
—— & Ratcliffe, H., 258 (Z.)
Hein, G. E., McCalla, R. L. & Thorne, G. W., 388 (Misc.)
Heitzmann, O., 97 (Fev.)
Hellerstroem, S., 666 (C.Bu.)
Hempt, A., 712 (Rab.)
Henderson, J. M., 981, 982 (Lep.)
——, with Muir, 653 (Lep.)
——, with —— & Landeman, 210 (Lep.)
Henderson, J. R., 831 (Z.)
Hendrie, H. M., (14) (Y. & S.)
Henriques, J. F., 561 (Mal.)
Henry, E., with van den Branden, 133 (Mal.)
Henry, T. A. & Brown, H. C., 635 (Dys.)
Henry, X., 148 (Mal.)
Hercelles, O., 53 *bis*, 527 (Fev.)
d'Herelle, F. & Malone, R. H., 308 (Chl.)
Herman, L., with Canciulesco & Hirsch, 558 (Mal.)
Hermans, E. H., 175 (Hist.), 841 (B.R.)
——, with de Langen, 636 (Lep.)
Hernández, L. G., with Otero, 979 (Lep.)
Heronimus, E. S., 590 (R.F.)
Herrick, C. A., 967 (Hel.)
Herrmann, E., 107 (Jaun.)
Herrmann, G. R., with Scott, 867 (Bb.)
Herrmann, O., 714 (Rab.)
——, Kolossow, J. & Lipin, N., 919 (Misc.)
Hertig, M., with Young, 64, 424 (K.A.)
Herzberg, K., with Manteufel, 659 (Y. & S.)
Hewetson, W. M., 570 (Mal.)
Heydon, G. M., 453, 466 *bis*, 474 (Hel.)
Hildebrand, S. F., 275 (Z.)
Hill, C. M. & Hill, R. B., 244 (Dys.)
Hill, R. B., 466 (Hel.)
Hindle, E., 539 (Y. F.)
—— & Patton, W. S., 64 (K.A.)
——, with ——, 822 (Z.)
——, with Sellards, 539 (Y.F.)
—— & Thomson, J. G., 859 (K.A.)
Hingston, H., (500) (Misc.)
Hinman, E. H., with Matheson, 806 (Z.), 918 (Misc.)
Hinshaw, H. C., (737) (Z.)
Hiraishi, T., 465 (Hel.)
Hirano, R. & Shiraogawa, H., 238 (Dys.)
Hirasawa, I., 465 (Hel.)
Hirsch, with Hahn, 310 (Chl.)
Hirsch, R., with Canciulesco & Herman, 558 (Mal.)
Hirst, L. F., (321) (Pl.)
Hirst, S., 288 (Z.)
Hitti, Y. K., with Lépine, 862 (K.A.)
Hitzrot, L. H., 400 (Misc.)
Hiyeda, G., 610 (Jaun.)
Hoare, C. A., 264 (Z.)
Hodara, M. & Behdjet, H., 34 (Der.)
Hodgson, E. C., Vardon, A. C. & Singh, Z., 413 (Misc.)
Hodson, V. S., 224 (Am.)
Hoffman, W. A., 459 (Hel.)
——, with Lambert, 948 (Hel.)
Hoffmann, C. C., 812 (Z.)
Hoffmann, H., with Frei, 18 (C. Bu.)
Hoffmann, W. (889) (H.S.)
Hoffmann, W. H., 104 (Jaun.) 416 (Misc.) 543, 547, 549 *bis* (549 *bis*) 852, 853 (Y.F.), 644, (654 *bis*) (Lep.), 735 (Z.)
Hoflin, J. W., 119 (Mal.)
Hofstötter, H. (474) (Hel.)
Höglund, G., 89 (R.F.)
Hogue, M. J., 257, 724 (Z.)
Holliday, M., with Webb, 11 (Y. & S.)
Hollmann, G. F., 482 (Oph.) 562 (Mal.)
Holst, J. E., 57 (Sp.)
Hone, F. S., 51 (Fev.)
Honig, L., with Schüffner, Mochtar & Proehoeman, 544 (Y.F.)
van Hoof, L., 775, 779, 780 *ter* (S.S.)
——, with Duke, 776 (S.S.)
——, with Kleine & Duke, 781 (S.S.)
van Hoorde, 660 (Y. & S.)
Hooton, A., 367 (Misc.)
Horowitz, with Jeanselme & Huet, 862 (K.A.)
Horwitz, P., 646 (Lep.)
Hoshi, N., (635) (Dys.)
Hosoya, S. with Fukushima, 106 (Jaun.)
——, with Sazerac & Stefanopoulo, 101 (Jaun.)
—— & Stefanopoulo, G. J., 608 (Jaun.)
Hospital for Tropical Diseases, London, 757 (B.R.)
Houdemer, E., with Joyeux, 460 (Hel.)
Houssiau & Duwez, J., 222 (Am.)
Howard, H. J., 477, 482 *bis*, 483 (Oph.)
Hsu, K., 480 (Oph.)
Hu, C. H. & Cash, J. R., 70 (K.A.)
——, with ——, 71 (K.A.)
Huchard, G. L., 37 (Der.)
Huddleson, I. F., with Orr, 515 (Und.)
Hudicourt, L., 161 (Bl.)
Hudson, N. P., 853 (Y.F.)
——, with Bauer, 848 (Y.F.)
——, with Stokes & Bauer, 537, 538 (Y.F.)
Huet, L., with Jeanselme & Horowitz, 862 (K.A.)
Huff, C. G., 262 (Z.)
Hughes, T. A. & Shrivastava, D. L., 395, 415 (Misc.)
Hugonot, with Pilod & Codvelle, 453 (Hel.)
Huinink, A. S. T. B., with Schuurman, 919 (Misc.)
Huizenga, L. S., (889) (H.S.)
Hulshoff, A. A., with Olivier 565 (Mal.)
Hunt, R., McCann, W. S., Rowntree, L. G., Voegtlin, C. & Eggleston, C., (500) (Misc.)
Huntsinger, F. O., 7 (Y. & S.)
Huppenbauer, C. B., 925 (Misc.)
Hutchinson, W. A., 16 (G.V.)
Hutchison, H. S., 457 (Hel.) 614 (Am.)

## I

Iatzenko, T. I., 817 (Z.)
Ibrahim, A., 397 (Misc.) 456 (Hel.)
Ibrahim, F. G., 476 (Hel.)

Ichok, M. G., 187 (Rab.)
Ievers, C. L., 389 (Misc.)
Igari, D., with Hayashi, 453 (Hel.)
Ignacio, M., with Sison, 496 (Misc.)
Ignacio, P., with Vitug, 131 (Mal.)
Ihara, Y., 641 (Lep.)
Iimura, (676) (Pl.)
Iio, A., 960 (Hel.)
Ikegami, Y., 7 (Y. & S.)
Imig, F., 710 (Rab.)
Inada, J., 105 (Jaun.)
Indian Medical Gazette, 755 (B.R.)
Infante, 794 (S.S.)
Ingram, A., 831 (Z.)
—— & de Meillon, B., 815 (Z.)
Inokuchi, K., 629 (Dys.)
Inouyé, Z., 681 (Chl.)
——, with Takano & Ohtsubo, (684) (Chl.)
Ioff, I., 286 (Z.)
Ionesco, D. & Valter, B., 191 (Rab.)
Ioneseco-Mihaiesti, C. & Damboviceanu, A., 627 (Dys.)
Iramina, K., (157) (Mal.)
Irfan, J., with Martini, Mahmud & Vogel, 810 (Z.)
d'Irsay, S., 178 (Hist.)
Isabolinsky, M. & Zeitlin, A., 190 (Rab.)
Ishibashi, T., with Hashimoto, Iwatake & Ota, 28 (Der.)
Ishii, N., 941 (Hel.)
Ishii, S., with Miyagawa, 195 (Rab.) 715 (Rab.)
Ishikawa, S. & Nohira, A., 39 (Der.)
Ito, K., 455 (Hel.)
Itoh, T., with Murata & Ogawa, 698 (Der.)
Iturbe, P. M., 209 (Lep.)
Iwatake, H., with Hashimoto, Ishibashi & Ota, 28 (Der.)
Izquierdo Salazar, A. D., (635) (Dys.)

## J

Jacob, J. E., with Cox, 496 (Misc.)
—— & McLavy, J. R., 496 (Misc.)
Jaffé, R. H. & Willis, D., 835 (Z.)
Jahnel, F. & Lange, J., 7 (Y. & S.)
—— & Lucksch, F., 594 (R.F.)
Jakoby, C., 223 (Am.)
James, S. P., 115, 573 (Mal.) 846 (Y.F.)
——, Nicol, W. D. & Shute, P. G., 573 (Mal.)
James, W. M., 212 (Am.)
Jameson, A. P., 263, 729 (Z.)
Jantzen, W., 380 (Misc.) 875 (Bb.)
Jaubert, A., with Lemierre & Marchal, 508 (Und.)
Jeannin, with Morenas & Cade, 939 (Hel.)
Jeanselme, E., 8 (Y. & S.) 976 (Lep.)
——, Huet, L. & Horowitz, 862 (K.A.)
Jessner, M., 74 (K.A.)
v. Jettmar, H. M., 310 (Chl.) 320 (Pl.)
Jo, M., 101 (Jaun.)
Jobling, B., 825 (Z.)
Johansen, F., 647 (Lep.)
Johnson, W. B. & Rawson, P. H., 284 (Z.)
Jolly, G., 905 (Lab.)
Jones, A. E., 14 (Y. & S.)
Jones, E. & Tirrill, Jr. W. O., 651 (Lep.)
Jones, E. L., 24 (Myc.), 682 (Chl.)
Jonnesco,, D., 191, 710 (Rab.)
—— & Valter, B., 191 (Rab.)
——, —— & Teodosiu, T., 191 (Rab.)
Jorge, R., 285 (Z.)
Journal of Laboratory & Clinical Medicine, 16 (G.V.)
Jowelew, B., with Elbert & Ssutin, 196 (Rab.)
Joyeux, C., 446 (474) (Hel.) 803 (S.S.)
—— & Baer, J. G., 460 (Hel.)
—— & Houdemer, E., 460 (Hel.)
—— & Kobozieff, N. I. (474) (Hel.)
Jungeblut, C. W., 237 (Dys.) 405 (Misc.)
Junior, V., 112, 853 (Y.F.)

## K

Kadaner & Wallon, R., (362) (S.S.)
Kalic, D., 229 (Dys.)
Kalloch, D. C., 480 (Oph.)
Kamat, S. A., with Caius & Naidu, 319 (Pl.)
Kanagarayer, K., 96 (R.F.)
——, , with Fletcher, 134 (Mal.)
Kanda, K. & Takizawa, T., 991 (Oph.)
Kandiah, M., 132 (Mal.)
Kandou, R., with Olivier, 454 (Hel.)
Karamchandani, P. V., 74 (K.A.)
Karapetiane, E., 449 (Hel.)
Karlowski, Z., (197) (Rab.)
Karve, S. D., 130 (Mal.)
Katagi, R., 736 (Z.)
Katsurada, F., 433 (Bb.)
—— & Yoshino, J., 534 (Fev.)
Katzenellenbogen, I., 996 (Misc.)
Kauders, O., 152 (Mal.)
Kauntze, W. H., 905 (Lab.)
Kawamura, R., 52 (Fev.)
Kawatani, S. & Okuwada, S., 190 (Rab.)
Käyser, J. D., 202 (Lep.) 704 (Der.)
Kedrowsky, W. J., 652 (Lep.)
Keevill, A. J., 795 (S.S.)
Kelsall, R., 287 (Z.)
Kellaway, C. H., 953, 955 (Hel.)
Kellersberger, E. R., 792 (S.S.)
Kenny, D. M., 376 (Misc.)
Kenya & East African Medical Journal, 451 (Hel.) (501 *bis*) (Misc.), 577 (Mal.) (644) (Y. & S.) (676) (Pl.)
Kenya, Ann. Rep. Med. Res. Lab., 905 (Lab.)
Kessel, J. F., 717 (Z.), (737) (Z.)
Khalil, M., 446, 456, 945, 947 (Hel.)
Khartoum, Kitchener School of Medicine, 1004 (B.R.)
Khouri, J., 528 (Fev.)
Kii, N., 193 (Rab.)
Kikuth, W., 159 (Bl.)
——, with Mayer, 521 (Fev.)
——, with —— & Borchardt, 254 (Z.)
——, with Regendanz, 838 (Z.)
—— & Tropp, G., 577 (Mal.)
Kimber, W. J. T., 442 (Pel.)
King, C. H., with Barber, 805 (Z.)
King, H. H., 288 (Z.) 904 (Lab.)
Kingsbury, A. N., 193 (Rab.) 487 (Misc.)
Kirby, Jr., H., 719 (Z.)
Kirby-Smith, J. L., 697 (Der.)
Kirkland, H. T., 945 (Hel.)
Kirkpatrick, H., 475, 990 (Oph.)
Kirschbaum, W., 151 (Mal.)

Kirschner, L., 12 (Y. & S.)
Kirstner, A. A., with Pantschenkow, 493 (Misc.)
Kislitschenko, L. & Baranoff, N., 282 (Z.)
Kissel, P., with Spillmann & Florentin, 981 (Lep.)
Klarenbeek, A., 103 *bis*, 611 (Jaun.)
Klauder, J. V. & Winkelman, N. W., 440 (Pel.)
Klein, B., with Mollow, 441 (Pel.)
Kleine, F. K., 759, 785, 802 (S.S.)
——, van Hoof, L. & Duke, H. L., 781 (S.S.)
Kligler, I. J., 351, 796 (S.S.) 809 (Z.) 849 (Y.F.)
—— & Ashner, M., 850 (Y.F.)
—— & Rabinowitch, G., 351 (S.S.)
Kling, C. A., 671 (Pl.)
Klingmüller, V., 203 (Lep.)
Klotz, O. & Simpson, W., 112 *bis* (Y. F.)
Knauer, E., 626 (Dys.)
Knowles, R., 324 (B.R.), 755 (B.R.)
—— & Gupta, B. M. D., 725 (Z.)
—— & Senior-White, R., 583 (B.R.), (158) (Mal.)
Kobayashi, K., 965 (Hel.)
Kober, P. A., 661 (Y. & S.)
Kobori, K., 455 (Hel.)
Kobozieff, N. I., with Joyeux, (474) (Hel.)
Koch, D. A., (737) (Z.)
Koch, J., 196 (Rab.)
Kodama, T., 633 (Dys.)
Kofoid, C. A., 721 (Z.)
Kohno, M., 939 (Hel.)
Koidzumi, M., (293 *bis*) (Z.)
—— & Hakushi, R., 268 (Z.)
Kokawa, H., 798 *ter* (S.S.)
Koldajew, B., 192 (Rab.)
Kolochine, C., with Pettit & Stefanopoulo, 851 (Y.F.)
Kolossow, J., with Herrmann & Lipin, 919 (Misc.)
Komp, W. H. W., with Barber, 277 (Z.) 917 (Misc.)
——, with —— & Hayne, 124 (Mal.)
——, with Maxcy & Barber, 558 (Mal.)
Konsuloff, S. 560 (Mal,)
Kopp, F. I., Dimitrieva, M. A. & Zwetkowa-Pirogovskaja, A. E., 934 (Hel.)
Koppel, A., 665 (C.Bu.)
Kopstein, F., 289 (Z.)
Korb, J. H., with Miyamoto, 1001 (Misc.)
Korke, V. T., 971 (Hel.)
Korkes, L., with Luger, 635 (Dys.)
Korteweg, P. C., 120 (Mal.)
Kossarew, N., with Lourié & Rosenblatt, 506 (Und.)
Kotelnikov, G., with Bezsonova & Semikoz, 674 (Pl.)
Koulescha, G. S., 981 (Lep.)
Kourilsky, R., with Lemierre, 619 (Am.)
Kovács, N., with Kraus, 681, 682 (Chl.)
Köveskuty, Jr., with Reiner, 344 (S.S.)
Kowalewa, O., with Glusmann & Predtetschenskaja, 711 (Rab.)
Kranzfeld, A. M., with Doubrovinsky, Rosenfeld & Salamandra, 934 (Hel.)
Kraus, R., 678 (Chl.)
—— & Kovács, N., 681, 682 (Chl.)
Kremer, W., with von Bánszky, (927) (Misc.)
Kreuter, E., 43 (Und.)
Kritschewski, I. L., 93 (R.F.), 407, 408 (Misc.)
—— & Rubinstein, P. L., 406 (Misc.)
Kritschewski, J. L. & Friede, K. A., 598 (R.F.)
Kritschewsky, J. L. & Lebedewa, M. N., 107 (Jaun.)
Krjukoff, A., 687 (Sp.)
Kröber, O., 828 (Z.)
Kroó, H. & Mano, Y., 494 (Misc.)
—— & Schulze, F. O., 494 (Misc.)
Krukow, A. N., 687 (Sp.)
Külz, L., 499 (Misc.)
Kunkel, L. O., 929 (B.R.)
Kuno, Y. (501) (Misc.)

## L

Laake, E. W., with Parman, Bishopp, Cook & Roark, 827 (Z.)
Labbé, M., Lomon & Seligman, 954 (Hel.)
Labernadie, V., 200, 647 (Lep.) (501) (Misc.)
—— & André, Z., 651 978 (Lep.)
—— & Laffitte, N., 206 (Lep.)
Laborderie, with Basset, 714 (Rab.)
Lacorte, J. G., 356 (S.S.)
——, with Godoy, 728 (Z.)
Lacroix, A., with Dévé, 956 (Hel.)
La Face, L., 819 (Z.)
——, with Ottolenghi, Brotzu, Brighenti & Robuschi, 123 (Mal,)
—— & Sella, M., 578 (Mal.)
Laffitte, N., with Labernadie, 206 (Lep.)
de Lagoanère, J. L., with Anderson, 947, (Hel.)
Lagrange, E., 588 (R.F.), 678 (Chl.)
Lahiri, B. N., with Cunningham & Nicholas, 190 (Rab.)
Laidler, P. W., 281 (Z.)
Laigret, J., with Mathis & Sellards, 538 (Y.F.)
Laino, F., with Davis & Cabarrou, 125 (Mal.)
Lake, G. C., with Watkins, 504 (Und.)
Lal, C., with Shortt & Das, 419 (K.A.)
Lambert, R. A., 459 (Hel.)
—— & Burke, A. M. B., 948 (Hel.)
—— & Hoffman, W. A., 948 (Hel.)
Lambert, S. M., 969 (Hel.)
Lambert, Jr., S. W., 263 (Z.)
Lamson, P. D., Minot, A. S. & Robbins, B. H., 469 (Hel.)
Lancet, (654) (Lep.)
Landeman, E., with Muir & Henderson, 210 (Lep.)
Landsteiner, K. & Levine, P., 310 (Chl.)
—— & van der Scheer, J., 495 (Misc.)
Lane, C., 467, 937, 968 *bis* (Hel.)
Lange, J., with Jahnel, 7 (Y. & S.)
de Langen, C. D., 644 (Lep.)
—— & Hermans, E. H., 636 (Lep.)
Langeron, J., 660 (Y. & S.)
Langeron, M., 748 *bis*, 749 (Myc.)
Langworthy, V. & Moore, A. C., 99 (Jaun.)
Lanoue, H., (158) (Mal.)
Lara, C. B., 644, 984 (Lep.)
——, with Cruz & Paras, 979 (Lep.)
——, with Roxas-Pineda & Nicolas, 984 (Lep.)
——, de Vera, B. & Eubanas, F., 983 (Lep.)
Lara, H., 305 (Chl.)
La Rosa, 60 (K.A.)
Larrousse, F., (738) (Z.)

Lasnet, 844 (Y.F.)
Lässer, P., 189 (Rab.)
La Terza, 414 (Misc.)
Laud, D. S., 675 (Pl.)
Lauda, E. & Marcus, F., 837 (Z.)
Lavier, G., 357, 358, 359 *bis*, 360, 768, 786, 800 (S.S.)
Lavinder, C. H., 382 (Misc.)
League of Nations, 115 (Mal.), 312 (Chl.), 759 (S.S.)
Leão, A. E. de A., 740 (Myc.)
——, with da Fonseca, 25 (Myc.) 31, 693, 696 *bis* (Der.) 741, 743 *quat.*, 744, 745 (Myc.)
——, with —— & Penido, 695 *bis* (Der.)
Lebedewa, M. N., with Kritschewsky, 107 (Jaun.)
Lebedjeva, M. & Ssinjuschina, M., 89 (R.F.)
Lebedjewa, M., 93 (R.F.)
Leber, A., 735 (Z.)
Le Bourhis, 4 (Y. & S.)
Lecomte, 369 (Misc.)
Ledentu, G., 337 (S.S.)
—— & Vaucel, M., 118 (Mal.), 334, 335, 338, 339, 340 (S.S.)
Leder, 802 (S.S.)
Ledoux, Archer & Clerc, 512 (Und.)
Lee, C. U. & Meleney, H. E., 578 (Mal.)
——, with —— & Chang, 268 (Z.)
Lefrou, G., 529 (Fev.)
Lega, G., 899 (Bl.)
Legendre, F. M. A. & Cienfuegos, J. M. A., 144 (Mal.)
Legendre, J., 39, (Der.) 55, 529 (Fev.) 274, 276 (Z.), (738), 806 (Z.) 914 (Misc.)
Leger, M., 111 (Y.F.), 200 (Lep.), 430 (K.A.), 465 949, 970 (Hel.) (579) (Mal.) 888 (H.S.)
Lehr, E., 197 (Rab.)
Leiper, R. T., 948 (Hel.)
Leitão, C. A. P., with Gomes & Wancolle, 643 (Lep.)
Lemaire, A., with Loeper & Schulmann, 610 (Jaun.)
Lemierre, A. & Kourilsky, R., 619 (Am.)
——, Marchal, G. & Jaubert, A., 508 (Und.)
Le Moignic, 843 (Y.F.)
Lépine, P. & Hitti, Y. K., 862 (K.A.)
——, with Nattan-Larrier, 354 (S.S.)
——, with —— & May, 354 (S.S.)
Lester, V., 232 (Dys,)
Lestoquard, F., with Parrot & Donatien, 427 (K.A.)
Leuchs, J. & Plochmann, E., 231 (Dys.)
Levaditi, C., 720 (Z.)
—— & Anderson, T. E., 593 (R.F.)
—— & Delorme, M., 350, 797 (S.S.)
—— & Longinesco, J., 495 (Misc.)
—— & Schoen, R., 720 (Z.)
Le-van-An, with Borel, 554 (Mal.)
Levi, I., 977 (Lep.)
Levine, P., with Landsteiner, 310 (Chl.)
Lévy, G., with Chevallier, 803 (S.S.)
Lewthwaite, R., 535 (Fev.)
Li., K. H., (579) (Mal.)
Licheri, A., 372 (Misc.)
Lichtenstein, A., 4 (Y. & S.) 395, 405 (Misc.) 470 (Mal.)
Lie, H.P., 640 (Lep.)
Liljestrand, G., with Bjerlow, 94 (RF.).
Lillie, R. D., with Goldberger, Wheeler & Rogers, 886 *bis* (Pel.)
Lima, A. da C., (293), 835 (Z.)
Limousin, H., with Deschiens & Troisic, 265 (Z.)
——, with Troisier, Deschiens & Delorme, 963 (Hel.)
Lindberg, K., 26 (Der.)
Lindow, E. D., 208 (Lep.)
Liodt, 931 (Hel.)
Lipin, N., with Herrmann & Kolossow, 919 (Misc.)
Lippincott, L. S., 556 (Mal.)
Lipscomb, F. M. & Mansell, R. A., 129 (Mal.)
Lischetti, A. B., 920 *bis* (Misc.)
Lisgunova, A. W. & Butjagina, A. P., 406 (Misc.)
Lisowa, A. I., with Chodukin, 128 (Mal.)
Lissner, L., 933 (Hel.)
Lister, F. S., 906 (Lab.)
Liston, W. G., 489 (Misc.)
Little, E. G., & Hasson, J., 211 (Lep.)
Ljachowetzky, 129 (Mal.)
Lloyd, L., 283 (Z.)
Lloyd, R., with Skelton & Malcolm, 244 (Dys.)
Loeper, M. & Garcin, R., 957 (Hel.)
——, Schulmann, E. & Lemaire, A., 610 (Jaun.)
Loganadan, A. D., with Wats & Conquest, 631 (Dys.)
Lombardo, C. & Tornabuoni, G., 13 (Y. & S.)
Lomon, with Labbé & Seligman, 954 (Hel.)
Lomry & Gillet, 491 (Misc.)
Lonero, G., 48 (Und.)
Long, J. D., 317 (Pl.)
Longinesco, J., with Levaditi, 495 (Misc.)
Longo, D., 567 (Mal.)
Lopes, 793 (S.S.)
Lopes, I. C., 191 (Rab.)
Lopez-Neyra, C. R., 460, 952 (Hel.)
Lotsy, G. O., 168 (B.R.)
Lotti, C. & Puxeddu, E., 385 (Misc.)
Lourié M., Kossarew, N. & Rosenblatt, A., 506 (Und.)
Low, G. C., 63 (K.A.), 564 (Mal.)
—— & Benton, D., 58 (Sp.)
—— & Cooke, W. E., 59 (Sp.)
Luchini, F. P. & Perez de Nucci, R., 246 (Dys.)
Lucksch, F., with Jahnel, 594 (R.F.)
Luengo, E., 94 (R.F.)
Luger, A. & Korkes, L., 635 (Dys.)
Luis Carrera, J., 652 (Lep.)
di Lullo, O., 699 (Der.)
Lumbroso, U., 476 (Oph.)
——, with Durand, P., 475 (Oph.)
Luther, S., 434 (Bb.)
Lynch, K. M., 616 (Am.)

**M**

Maass, E., 374 (Misc.), 656 *bis* (Y. & S.)
McAlpine, J. G. & Slanetz, C. A., 517 (Und.)
MacArthur, W. P., 180 581 (Hist.)
McCalla, R. L., with Hein & Thorne, 388 (Misc.)
McCann, W. S., with Hunt, Rowntree, Voegtlin & Eggleston, (500) (Misc.)
McCarrison, R., 499 *bis* (Misc.), 863, 878 (Bb.)
MacCarthy, J. T., 444 (Pel.)

McCarty, S. H., with Graham, 388 (Misc.)
Macciotta, G., 560 (Mal.)
McCulloch, W. E., 219 (Am.)
Macdonald, G., with Blacklock, 901 (Bl.)
McDonnell, A. J. V., 309 (Chl.)
MacDougall, M. S., 262 (Z.)
Macfie, J. W. S., 728 (Z.)
McGavran, E. G. & Songkla, M., 951 (Hel.)
McGillivray, W. S., 52 (Fev.)
McGlinn, J. A., 16 (G.V.)
MacGregor, I. G., 11 (Y. & S.)
MacGregor, M. E., 79 (B.R.)
McGuire, C., with Acton, 27 (Der.)
Machado, A., 418 (Misc,)
Macht, D. I., with Dunning, 347 (S.S.)
Maciel, H., (247) (Dys.)
MacInnes, A., 292 (Z.)
McKendrick, A. G., 187, 706, 712 (Rab.)
McKenzie, A., 118 (Mal.)
Mackenzie, I., 112 (Y.F.) 127 (Mal.)
Mackenzie, L. H. L., 397 (Misc.) 534 (Fev.), 939 (Hel.)
Mackerras, I. M., 804 (Z.) 926 (Misc.)
Mackey, C., 891 (Bl.)
Mackie, A. S., 87 (R.F.), 161 (Bl.) *bis*
Mackie, F. P., 298 (Lab.)
Mackie, T. J. & McLachlan, D. G. S., 99 (Jaun.)
McLachlan, D. G. S., with Mackie, 99 (Jaun.)
McLavy, J. R., with Jacob, 496 (Misc.)
Maclennan, N. M., with Philip, 964 (Hel.)
McNabb, P. E. & Stewart, Jr., T. H., 569 (Mal.)
MacPherson, J., 292 (Z.)
MacQueen, J., 396 (Misc.)
MacRae, A., 475 (Oph.)
Madinaveitia, J. M., Ruiz, A. & Ramirez, P., 259 (Z.)
Madon, E. E., with Dalal, 918 (Misc.)
Madras, 299, 904 (Lab.)
Magalhaes, O., 747 (Myc.)
——, O. & Neves, A., 21, 741 (Myc.)
Magath, T. B., 951 (Hel.)
Maghraby, A. M., 480 (Hel.)
Magnitsky, V. & Gutzevitch, A., 823 (Z.)
Magrou, J., with Gosset & Bertrand, 751 (Myc.)
Mahfuz, A. H., 950 (Hel.)
Mahieu, A., with Pavlovsky & de Filippi, (973) (Hel.)
Mahmud, S., with Martini, Irfan & Vogel 810 (Z.)
Majima, M., 942 (Hel.)
Majumder, B. C., with Ryles, 917 (Misc.)
Malandkar, M. A., with Sokhey, 686 (Sp.)
——, with —— Gokhale & Billimoria, 688 (Sp.)
Malariacommissie voor Noordholland, 120 (Mal.)
Malayan Medical Journal, 912 (Misc.)
Malcolm, J. W., with Skelton & Lloyd, 244 (Dys.)
Mallik, K. L. B., 683 (Chl.)
Mallory, F. B., with Phelps, 396 (Misc.)
Malone, R. H., with d'Herelle, 308 (Chl.)
Manalang, C., 960, 963 (Hel.)
Mandry, O. C., 625 (Dys.)
—— & Marín, R. A., 1002 (Misc.)
Manifold, J. A., with de Monte, A. J., 632 (Dys.)
Mano, Y., with Kroó, 494 (Misc.)
Manoloff-Sliven, S., 135 (Mal.)
Manouélian, Y. & Viala, J., 189, 707 *ter* (Rab.)
Mansell, R. A., with Lipscomb, 129 (Mal.)
Mansfield-Aders, W., 551 (Mal.), 971 (Hel.)
Manson-Bahr, P., 148, 564 *bis*, (Mal.) 511 (Und.) 655 (Y. & S.), 986 (Lep.)
—— & Anderson, S. M., 14 (G.V.)
—— & Maybury, L. M., 132 (Mal.)
—— & Sayers, E. G., 220 (Am.)
Manteufel, P. & Herzberg, K., 659 (Y. & S.)
Manwell, R. D., with Hegner, 137 (Mal.)
Maplestone, P. A., 966 (Hel.)
Maranháo, J. L., 867 (Bb.)
Marcellus, M. B., 259 (Z.)
Marchal, G., with Lemierre & Jaubert, 508 (Und.)
Marchoux, E., 555 (Mal.), 851 (Y.F.)
—— & Caro, J., 978 (Lep.)
Marcus, F., with Lauda, 837 (Z.)
Margarot, J. & Deveze, P., 982 (Lep)
Marginesu, P., 122 (Mal.)
Marie, A. C., 706 *bis* (Rab.)
—— & Mutermilch, S., 709 (Rab.)
——, Remlinger, P. & Vallée, H., 706 (Rab.)
Marie, J., with Debré & Giroud, 509 (Und.)
Marin, R. A., with Mandry, 1002 (Misc.)
Marras, A., 988 (Lep.)
Marsh, E. B., 313 (Chl,)
Marshall, H. K., 393 (Misc.)
Marshall, J. F., 912 (Misc.)
Martin, A. P., with Ross, 44 (Und.)
Martin, C. de C., with Taylor & Thant, 866 (Bb.)
Martin, H. M., 960 (Hel.)
Martin, M., 295 (Lab.)
Martin, S. H., 969 (Hel.)
Martínez García, P., 60 (K.A.)
Martini, E., 545 *bis* (Y.F.), (738) (Z.)
——, Irfan, J., Mahmud, S. & Vogel, R., 810 (Z.)
Martins, C., 742 *bis* (Myc.)
Marugo, 791 (S. S.)
de Marval, L., 643 (Lep.)
Marzinowsky, E., 585 (R.F.)
Masci, C., 601 (Fev.)
Maselli, D., 560 *bis* (Mal.)
Mason, R. E., 993 (Oph.)
Massa, M., 147 (Mal.)
Mastroianni, A., 306 (Chl.)
Matarangas, G., 426 (K.A.), 556 (Mal.)
Mateisco, E., with Nicolau, 709 (Rab.)
Matheson, R. & Hinman, E. H., 806 (Z.), 918 (Misc.)
Mathis, C., 87, 587 *ter*, 588 *bis*, 597 (R.F.)
——, Cazanove, F. & Bacqué, M., 545 (Y.F.)
——, Durieux, C. & Ewstifeief, C., 87
——, Sellards, A. W. & Laigret, J., 538 (Y.F.)
Matsushita, M., 610 (Jaun.)
da Matta, A., 694, (705) (Der.)
Matthiasson, S., 461 (Hel.)
Mattos, E., (321) (Pl.), (549) (Y.F.)
Maxcy, K. F., Barber, M. A. & Komp, W. H. W., 558 (Mal.)
Maxwell, J. L., (313) (Chl.)
Maxwell, J. S., 663 (Y. & S.)
May, J., with Nattan-Larrier & Lépine, 354 (S.S.)
Maybury, L. M., with Manson-Bahr, 132 (Mal.)
Mayeda, I., 629 (Dys.)

Mayeda, M., 160 (Bl.)
Mayeda, S., with Giemsa, 346 (S.S.)
Mayer, M., Borchardt, W. & Kikuth, W., 254 (Z.)
—— & Kikuth, W., 521 (Fev.)
—— & Ray, J. C., 859 (K.A.)
Mayer, T. F. C., 978 (Lep.)
Mayo, 754 (B.R.)
Mazza, S., 287 (Z.) (474) (Hel.)
——, Forté, E., Alvarez Soto, N. Arias Aranda, C., 133 (Mal.)
—— & Parodi, S., 744 (Myc.)
Mazzolani, D., (535) (Fev.)
Mebius, J., 870 (Bb.)
Medeiros, L., 200 (Lep.)
Megaw, J. W. D., 755 (B.R.)
—— & Gupta, J. C., 364 (Misc.)
—— & Mullick, M. N., 923 (Misc.)
Meihuizen, F. H., 418 (Misc.)
Meillon, B., with Ingram, 815 (Z.)
Meleney, H. E., 592 (R.F.), 717 (Z.)
——, with Lee, 578 (Mal.)
——, Lee, C. U. & Chang, H. L., 268 (Z.)
de Mello, F., 448 (Hel.)
—— & Vernencar, H. P., 578 (Mal.)
Melnotte, P. & Farjot, A., 100 (Jaun.)
Melnotte, P. E. M., with Fontanel, 222 (Am.)
Mendel, L. B., with Underhill, 885 (Pel.)
Menk, W., 36 (Der.), 378 (Misc.)
Mercier, L., 827 (Z.)
Merighi, G., with Schiassi, 565 (Mal.)
Mesnard, J., with Bablet, 402 (Misc.)
Messieri, A., 511 (Und.)
Messine, R., (635) (Dys).
Metelkin, A. I., 427 (K.A.)
Mételkine, A., (293) (Z.)
Mhaskar, K. S., with Caius, 410 (Misc.)
Miller, W. E., with Arnold, 48 (Und.)
Minot, A. S., 417 (Misc.)
——, with Lamson & Robbins, 469 (Hel.)
Missiroli, A., 155 (Mal.), 820 (Z.)
—— & Hackett, L. W., 122 (Mal.)
Mital, B. P., 285 (Z.)
Mitchell, J. H., 698 (Der.)
Miwa, F., 971 (Hel.)
Miyagawa, Y., 193 (Rab.)
—— & Ishii, S., 195, (715) (Rab.)
Miyairi, K. & Takahashi, S., 52 (Fev.)
Miyamoto, K. & Korb, J. H., 1001 (Misc.)
Mochtar, A., with Schüffner, Proehoeman & Honig, 544 (Y.F.)
Mohile, G. B., with Vad, 137 (Mal.)
Moldawskaja, W., with Rubaschkin & Pauli, 153 (Mal.)
Molinelli, E. A., 979 (Lep.)
Mollow, W., 566 (Mal.), 883 (Pel.)
—— & Klein, B., 441 (Pel.)
Momma, K., 952 *bis* (Hel.)
Montagnani, M., 506 (Und.)
de Monte, A. J., with Manifold, 632 (Dys.)
Montel, L. R., 626 (Dys.)
Monteleone, R., 577 (Mal.)
Montero, A., 638 (Lep.)
Montoro, O., (501) (Misc.)
Montpellier, J. & Catanei, A., 24 (Myc.) 692, 695 (Der.)
——, —— & Clapier, P., 30 (Der.)
——, ——, & Colonieu, L., 392 (Misc.), 740 (Myc.)
——, & Colonieu, L., 392 (Misc.)
Moore, A. C., with Langworthy, 99 (Jaun.)
Moore, K. R., 51 (Fev.)
Mooser, H., 600 (Fev.)
Moreels, W., with Van den Branden, 747 (Myc.)
Moreels, with —— & Clevers, 341 (S.S.)
Moreira, M., 201 (Lep.)
Morenas, with Cade & Jeannin, 939 (Hel.)
——, with Tixier, Favre & Petouraud, 217 (Am.)
Moretti, P., 591 (R.F.)
Morgan, J., 449 (Hel.)
Morin, H. G. S., 553 (Mal.)
—— & Guillerm, J., 628 (Dys.)
Morishita, J. M. & Namikawa, H., 568 (Mal.)
Morishita, K. & Furutama, T., 146 (Mal.)
——, —— & Namikawa, H., 146 (Mal.)
Morison, J., 297 (Lab.)
Morisseau, R., 100 (Jaun.)
Morvan, Voizard, F. & Baize, 448 (Hel.)
Moschkowski, S., 345 (S.S.), (579) (Mal.)
——, with Péterfi, 429 (K.A.)
Motta, J., 204 (Lep.)
Moulin, H., with Tiprez, 936 (Hel.)
Mounier, with Garin & Doubrow, 936, 966, 970 *bis* (Hel.)
Moutier, F., 827 (Z.)
Mouzon, J., (158) (Mal.)
Much, Peemöller & Haim, 291 (Z.)
Mudd, S., 929 (B.R.)
Mühlens, P., 135, 564 (Mal), 377 (Misc.), 634 (Dys.)
Muir, E., 204, 205, 207, 982 (Lep.) (429) (K.A.)
—— & Chatterji, S. P., 649 (Lep.)
—— & Henderson, J. M., 653 (Lep.)
——, —— & Landeman, E., 210 Lep.)
Mu Jui-Wu, 443 (Pel.)
Mukerjee, S. K., 994 (Oph.)
Mukerji, A. K., 448, 467 (Hel.)
Mukerji, S. B., (158) (579) (Mal.)
Mukherjee, H. N., 858 (K. A.)
Mulholland, H. B. & Bray, W. E., 610 (Jaun.)
Muller, H. R., 498 (Misc.)
Müller, I., with Graf, 418 (Misc.)
Mullick, M. N., with Chopra, Gupta, J. C., & Gupta, A. K. D., 858 (K.A.)
——, with Megaw, 923 (Misc.)
Muniz, J., with da Cunha, 54, 523 (Fev.), 264 *bis*, 725 (Z.)
Munro, A. C., 278 (Z.)
Murata, T., Itoh, T. & Ogawa, K., 698 (Der.)
Muraz, G., 782 (S.S.)
Murray, F. J., (973) (Hel.)
Musser, J. H., 213 (Am.)
Mutermilch, S., with Marie, 709 (Rab.)
—— & Salamon, E., 352, 797 (S.S.)
Myers, G. S., 915 (Misc.)
Mylrea, C. S. G., 734 (Z.)

## N

Nadkarni, K. M., 502 (B.R.)
Nagano, K., 452 (Hel.)
Naidu, A. S., 729 (Z.)
——, with Caius & Kamat, 319 (Pl.)
Naidu, B. P. B. & Shamsher Jang, 320 (Pl.)
Nair, T. D., 656 (Y. & S.)
Nakamura, H., with Sazerac, 101 (Jaun.)
Nakamura, S., 98 (Fev.)

Namikawa, H., 361 (S.S.)
——, with Morishita, 568 (Mal.)
——, with —— & Furutama, 146 (Mal.)
Nannizzi, A., 20 (Myc.)
Nanta, A., 165 (Myc.), 400 (Misc.), 749 (Myc.)
——, with Pinoy, 163 (Myc.)
Napier, L. E., 62, 68, 425, (429) (K.A.), 756 (B.R.)
——, with Acton, 70 (K.A.)
—— & Gupta, C. R. D., 858 (K.A.)
—— & Halder, K. C., 62 (K.A.)
National Medical Association of China, 330 (B.R.)
Nattan-Larrier, L., 354 (S.S.)
—— & Lépine, P., 354 (S.S.)
——, —— & May, J., 354 (S.S.)
Neame, H., (362) (S.S.)
Nechkovitch, M., 291 (Z.)
Nederlandsch Tijdschrift vóor Geneeskunde, 370 *bis* (Misc.)
Neff, E. A., 975 (Lep.)
Nénon, J., 641 (Lep.)
Neprjachin, G. G., 146 (Mal.)
Nessmann, V. & Trensz, F., 946 (Hel.)
Neves, A., with de Magalhães, 21 (C.Bu.), 741 (Myc.)
Neveu-Lemaire, 447 (Hel.)
—— & Pellegrin, J., 935 (Hel.)
Neviadomsky, M. M., 138, 579 (Mal.)
Newham, H. B., 496 (Misc.) , 806 (Z.)
Newstead, R. & Carter, H. F., 804 (Z.)
Nicaud, P., 746 (Myc.)
Nicholas, M. J., with Cunningham & Lahiri, 190 (Rab.)
Nicholls, L., 278 (Z.)
——, with Denny, 382 (Misc.)
Nicholson, D., 951 (Hel.)
Nicol, W. D., with James & Shute, 573 (Mal.)
Nicolas, C., 55 (Fev.)
—— & Roxas-Pineda, E., 645, 983 (Lep.)
——, with —— & Lara, 984 (Lep.)
Nicolau, S. & Mateiesco, E., 709 (Rab.)
Nicoll, W., 451 (Hel.)
Nicolle, C., 84 (R. F.), 476 (Oph.)
—— & Anderson, C., 83 *ter*, 85, 90 *bis*, 91 *ter*, 586, 596 (R.F.)
——, —— & Colas-Belcour, J., 89 *bis*, (599) (R.F.)
Nierenstein, M., 903 (Bl.)
Nieschulz, O., 283 (Z.)
Nigeria, 295 (Lab.)
——, Ann. Rep. Med. Res. Inst., 294 (Lab.)
Nikanoroff, 671 (Pl.)
Niño, F. L., 356 (S.S.)
—— & Puglisi, A., 23 (Myc.)
Nishigori, M., 962 (Hel.)
Nishimura, K., 961 (Hel.)
van Nitsen, R., 5 *bis*, 660 (Y. & S.), 147 (Mal.) 223 (Am.), 597 (R.F.)
van Nitzen, R., 139 (Mal.)
Nitzulescu, V., 279, 286, 809, 827, 828 (Z.)
Nocht, B., 921 (Misc.)
Noda, Y., 967 (Hel.)
Noel, P., 704 (Der.)
Noguchi, H., 476 *bis* (Oph.), 524, 525, 526 (Fev.), 990 (Oph.)
Nohira, A., with Ishikawa, 39 (Der.)
Nohl, J., 248 (B.R.)
Novillo Pizarro, R., with Ovejero Paz, 428 (K.A.)
Núnez Tovar, M., with Dyar, 266 (Z.)
Nye, R. N., Zerfas, L. G. & Cornwell, M. A., 998 (Misc.)

**O**

Oba, T., 967 (Hel.)
Oberling, C,. 750 (Myc.)
Ocampo, A. N., with Albert, 869 (Bb.)
Ochoterena, I., 474 (Hel.)
O'Connor, F. W., 472 (Hel.)
Ogawa, K., with Murata & Itoh, 698 (Der.)
Ogilvie, A. G., 497 (Misc.)
Ohta, J., 942 (Hel.)
Ohtsubo, I., with Takano & Inouye, (684) (Chl.)
Okuwada, S., with Kawatani, 190 (Rab.)
Oldt, F., with Chan, 478 (Oph.)
Olitsky, P. K., 929 (B.R.)
Olivares, R., 385 (Misc.)
Olivero, C., 507 (Und.)
Olivier, P. H. & Hulshoff, A. A., 565 (Mal.)
—— & Kandou, R., 454 (Hel.)
Olmer, D., with Burnet, 530 (Fev.)
Ongkiehong, H. F., (599) (R.F.)
Orachowatz, D., 567 (Mal.)
Orenstein, A. J., 964 (Hel.)
Orgaz, J., with Castellano, 957 (Hel.)
Orlandi, N., 748 (Myc.)
Orr, P. F. & Huddleson, I. F., 515 (Und.)
Oshiro, M. & Yushyo-Kei, 875 (Bb.)
Ota, M., with Hashimoto, Ishibashi & Iwatake 28 (Der.)
Otero, P. M., 850 (Lep.)
—— & Hernández, L. G., 979 (Lep.)
Otto, G. F., with Ackert, 451 (Hel.)
Otto, R., 292 (Z.)
Ottolenghi, D., with Brotzu, G., La Face, L., Brighenti, D. & Robuschi, L., 123 (Mal.)
Ouchakow, W. G., 712 (Rab.)
Ouy-Vernazobres, C., 174 (Hist.)
Ovazza, V. E. (579) (Mal.)
Ovejero Paz, A. & Novillo Pizarro, R., 428 (K.A.)
Owen, D. U., 73, 861 (K.A.)
——, with Stephens, 149 (Mal.)
Oyarzabal, J., with Biglieri & Villegas, 192 (Rab.)

**P**

Pacella, G., with Sordelli, 292 (Z.)
Pacheco, G., 626 (Dys.), 722(Z.)
Paes, A., 401 (Misc.)
Paisley, J. C., 318 (Pl.)
——, with Connal, 672 (Pl.)
Pal, R. D., 319 (Pl.)
Palacios, C., with Santillan, 32 (Der.)
Palacios de Borao, G., 975 (Lep.)
Palaska, R., 10 (Y. & S.)
Paldrock, A., 204, 207, 985 (Lep.)
Palestine, 907 (Lab.)
Palmer, A., 292 (Z.)
Palmer, F. J., 305, 677 (Chl.)
Pampana, E. J., 585 (R.F.)
Panama Canal Zone, 569 (Mal.)
Panayotatou, A., 24 (Myc.), 238 (Dys.)
Panja, G., 76 (K.A.)
——, with Acton, 697 (Der.)

Pantschenkow, M. M. & Kirstner, A. A., 493 (Misc.)
Papadopoulo, J., with Petzetakis, 751 (Myc.)
Papamarku, P., 495 (Misc.)
Paponnet, with Vialard, 619 (Am.)
Paras, E. M., with Lara & Cruz, 979 (Lep.)
Parman, D. C., Bishopp, F. C., Laake, E. W., Cook, F. C. & Roark, R. C., 827 (Z.)
Parodi, S., with Mazza, 744 (Myc.)
Parrot, L., 824 (Z).
—— & Donatien, A., 75 (K.A.)
——, —— & Lestoquard, F., 427 (K.A.)
Parshall, C. J., with Carpenter, 49 (Und.)
Parsons, R. P., 5, 6, 664 (Y. & S.)
Partearroyo, F. R., 505 (Und.)
Pascheff, C., 475 (Oph.)
Pasqual, J. H., (501) (Misc.)
Pasquini Lopez, C., 32 (Der.)
Pasteur, F., with Phisalix, 732 *bis* (Z.)
Pastore, S., 575 (Mal.)
Patanè, C., 8 (Y. & S.)
Patel, G. P., with Campbell, 404 (Misc.)
Paton, L., 993 (Oph.)
Patto, J. O., 233, 234 (Dys.)
Patton, W. S. & Hindle, E., 822 (Z.)
——, with ——, 64 (K.A.)
Paul, N., 884 (Pel.)
Pauli, S., with Rubaschkin & Moldawskaja, 153 (Mal.)
Pautrier, L. M., 641 (Lep.)
Pavlovsky, A. J., Mahieu, A., & de Filippi, (973) (Hel.)
Pavlowsky, E. N., & Stein, A. K., 287 (Z.)
Pawan, J. L., 150 (Mal.)
Pawlowsky, E. N., 429 (K.A.)
—— & Stein, A. K., 288, 834 (Z.)
Pearce, T. V., 957 (Hel.)
Pecori, G., & Escalar, G., 156 (Mal.)
Peemöller, with Much & Haim, 291 (Z.)
Pellegrin, J., with Neveu-Lemaire, 935 (Hel).
Peña Chavarria, A., 656 (Y. & S.)
Penido, J. C., with da Fonseca & Leâo, 695 *bis* (Der.)
Peon, I. E., with Brosius & Carrol, 969 (Hel.)
Pereira, L., 561 (Mal.)
Perez de Nucci, R., with Luchini, 246 (Dys.)
Perfiliev, P. P., 824 (Z.)
Perfiliew, P., 286, (Z.)
Perfiljew, P., 824 (Z.)
Pern, S., 292 (Z.)
Perry, H. M., & Bensted, H. J., 624 (Dys.)
Perumal, M. V., 132 (Mal.)
Peruzzi, M., 771, 787 (S.S.)
Peryassu, A. G., 548 (Y.F.)
Peter, F. M., 34 (Der.), 622 (Am.), 642 (Lep.)
Péterfi, T., & Moschkowski, S., 429 (K.A.)
Peterman, M. G., (293) )Z.)
Peterson, E., with Butler, 1 (Y. & S.), 125 (Mal.)
Petouraud, C., with Tixier, Favre & Morenas, 217 (Am.)
Petragnani, G. & Castelli, A., 275 (Z.)
Pettit, A., 840((B.R.)
—— & Stefanopoulo, G., 850 (Y.F.)
——, —— & Aguessy, C., 850 (Y.F.)
——, —— & Frasey, V., 851 (Y.F.)
——, —— & Kolochine, C., 851 (Y.F.)
Petzetakis, M., & Papadopoulo, J., 751 (Myc.)
Pewny, W., 150 (Mal.)
Peyre, E. L., 650, 651 (Lep.)
de Peyrelongue, 478 (Oph.)
Phelps, B. M., & Mallory, F B., 396 (Misc.)
Philip, C. R., 373 (Misc.), 448 (Hel.)
—— & Maclennan, N. M., 964 (Hel.)
Phillis, E., with Browning, Cohen, Gulbransen, & Snodgrass, 94 (R.F.)
Phisalix, 732, 733 *bis* (Z.)
—— & Pasteur, F., 732 *bis* (Z.)
Photinos, T., 701 (Der.)
Piana, G. A., 576 (Mal.)
Picado, C., 733 (Z.)
Pickard, R. J., 256 (Z.)
Pickens, E. M., & Reed, R. C., 715 (Rab.)
Pickworth, F. A., 234 (Dys.)
Piéchaud, F., 176 (Hist.)
Pieri, J., with Boinet, 532 (Fev.)
Pierini, L. E., with Puente, (654) (Lep).
Pigoulesky, S. W., 455 (Hel.)
Pigoulewsky, S. W., 455 *bis*, (974) (Hel.)
Pijper, A. & Pullinger, B. D., 30, 696 (Der.)
Pilod, Codvelle & Hugonot, 453 (Hel.)
Pineda, E. V., 639, 653 (Lep.)
Pino Pou, R., 378 (Misc.)
Pinoy, 749 (Myc.)
—— & Nanta, A., 163 (Myc.)
Pinto, C., Barreto, J. de B. & Fialho, A., 829 (Z.)
Pirot, 527 (Fev.), 617 (Am.)
Pissurlencar, P., 171 (Hist.)
Pittaluga, G., 70 (K.A.), 546 (Y.F.)
Plantureux, E., 195, 707, (715) (Rab.)
Plaut, F., 591, 593 (R.F.)
Plawtow, K. A., 559 (Mal.)
Plehn, A., 151, 579 (Mal.)
Plochmann, E., with Leuchs, 231 (Dys.)
Pogorschelsky, H., 238 (Dys.)
Poisson, A., & Randiambelona, 958 (Hel.)
Polak, H. J., 657 (Y. & S.), 699 (Der.)
Poletti, R. A., with Castex & González, 892 (Bl.)
Ponomareff, A. W., 236 (Dys.)
—— & Tchechkoff, A., 191 (Rab.)
Ponomarew, A. W. & Tchechkow, A. M., 709 (Rab.)
Pons, R., & Advier, M., 382 (Misc.)
Pons-Leychard, 73 (K.A.)
——, with Gueidon, 73 (K.A.)
del Ponte, E., with Shannon, 820, 825 (Z.)
——, with —— & Davis, 816 (Z.)
Popov, S. P., & Shapshev, K. N., 128 (Mal.)
Popow, P., 824 (Z.)
—— & Zeiss, H., 890 (Bl.)
Popesco-Combiesco, C., 311 (Chl.)
Popper, N. & Raileanu, C., 750 (Myc.)
Postmus, S., with Sardjito, 611 (Jaun.)
Potter, L. A., 724 (Z.)
Póvoa, H., 416 (Misc.)
Powell, L., 630 (Dys.)
Power, P., 14 (Y. & S.)
Pozariski, P. F., 77 (K.A.)
Prado, A., (738) (Z.)
Prates, M. M., 768 (S.S.)
Prausnitz, C., 187 (Rab.)
Predtetschenskaja, L., with Glusmann & Kowalewa, 711 (Rab.)
Presse Médicale, 749 (Myc.)
Prigge, R. & Rothermundt, M., 592 (R.F.)
Prince, L. H., with Wight, 256 (Z.)
Proceedings of the Royal Society of Medicine, 739 (Myc.)

Proehoeman, S., with Schüffner, Mochtar & Honig, 544 (Y.F.)
Prum, T. & Vigoni, M., 373 (Misc.)
Prunelle, M., with Senevet, 818 *bis* (Z.)
Przesmycki, F., 487 (Misc.)
Public Health Bulletin, Washington, 980 (Lep.)
Public Health Reports, 276 (Z.), 848 (Y.F.)
Puente, J. J., 17 (G. V.)
—— & Pierini, L. E., (654) (Lep.)
Puglisi, A., with Niño, 23 (Myc.)
Pulido, A., 558 (Mal.)
Pullon, E. D., with Brown, 129 (Mal.)
Pullinger, B. D., with Pijper, 30, 696 (Der.)
Puntoni, V., 105 *bis* (Jaun.), 714 (Rab.)
Puri, I. M., (293) (Z.)
Puxeddu, E., with Lotti, 385 (Misc.)

Q

Quast, G. & Rotter, R., 714 (Rab.)
Quéméner, E., 69 (K.A.), (313) (Chl.), 965 (Hel.)
Quiason, J. O., with Albert, 231 (Dys.)

R

Rabe, H., 690 (Sp. )
Rebello, S., da Costa, S. F. G. & Rico, J. T., 938 *bis* (974) *ter* (Hel.)
Rabinowitch, G., with Kligler, 351 (S.S.)
Rachina, M. G., (158) (Mal.)
Rae, W., 202 (Lep.)
Raffaele, G., 818 (Z.)
Raileanu, C., with Popper, 750 (Myc.)
Ramalhao, C., 629 (Dys.)
Rambault-Simon, with Carrieu, 724 (Z.)
Ramirez, P., with Madinaveitia & Ruiz, 259 (Z.)
Ramos e Silva, J., 704 (Der.)
Ramsay, G. C., 2 (Y. & S.)
Ramsdell, S. G., 463 (Hel.)
Randiambelona, with Poisson, 958 (Hel.)
Rangoon, 905 (Lab.)
Rao, B. K. N., 475 (Oph.)
Rapoport, J. L., 899 (Bl.)
Ratcliffe, H., with Hegner, 258 (Z.)
Ratcliffe, H. L., 574 (Mal.)
Raúl Goyena, J., 219 (Am.)
Ravitsch-Tscherbo, M. I., with Adowa, 814 (Z.)
Rawson, P. H., with Johnson, 284 (Z.)
Ray, C., 69 (K.A.), 438 (Bb.)
Ray, I. C., 858 (K.A.)
Ray, J. C., with Engelhardt, 311 (Chl.)
——, with Mayer, 859 (K.A.)
Raymond-Hamet, 245 (Dys.)
Raynal, J., 140, 550 (Mal.)
Read, B. E., (654) (Lep.)
Readio, P. A., 832 (Z.)
Rebello, S., da Costa, S. F. G. & Rico, J. T., 464 (974 *ter*) (Hel.)
Rechnitzer, S., 991 (Oph.)
Reed, A. C. & Ash, J. E., 688 (Sp.)
Reed, R. C., with Pickens, 715 (Rab.)
Regendanz, P. & Kikuth, W., 838 (Z.)
——, with Reichenow, 349 (S.S.)
Reichenow, E. & Regendanz, P., 349 (S.S.)
Reiner, L. & Köveskuty, Jr., J., 344 (S.S.)
Reitani, V., with Cerruti, 110 (Jaun.)
Remlinger, 547 (Y.F.)
Remlinger, F., 390 (Misc.)
Remlinger, P., 614 (Am.), 187, 706 *bis*, 708, 710, 713 (Rab.), (715) (Rab.)
—— & Bailly, J., 196 *bis*, 708, 711, 713 (Rab.), 987 (Lep.)
——, with Marie & Vallée, 706 (Rab.)
Renault, J., 549 (Y.F.)
Renaux, E., 613 (Jaun.)
Rennie, J., 283 (Z.)
Revista Médica de Angola, 784 (S.S.)
Rezende, M. & Fernandes, E., 664 (Y. & S.)
Ribeyro, R. E., 521 (Fev.)
Rice, T. B. & Beatty, N., 715 (Rab.)
Rico, J. T., 960 (947) *bis* (Hel.)
——, with Rebello & da Costa, 464, 936 *bis*, (974) *ter* (Hel.)
Ricou, J. D., (927) (Misc.)
Riding, D., 488 (Misc.)
Riecke, H. G., 977 (Lep.)
Riesman, D. & Ahlfeldt, F. E., 745 (Myc.)
Rigollet, S., 547 (Y.F.)
Rille, 883 (Pel.)
Risacher, S. (579) (Mal.)
Risquez, F. A. (579) (Mal.)
Ritchie, T. R., 655 (Y. & S.), 970 (Hel.)
Riva, A., with De La Barrera, 450 (Hel.)
de Rivas, D., 447, 450 (Hel.)
Rivers, T. M., 188 (Rab.), 929 (B. R.)
Roark, R. C., with Parman, Bishopp, Laake & Cook, 827 (Z.)
Robbins, B. H., with Lamson & Minot, 469 (Hel.)
Robertson, M., 260 (Z.)
Robic, J., with Girard, 650 (Lep.)
Robineau, 637 (Lep.)
Robineau, M., 144 (Mal.)
Robinson, F. E., 45 (Und.)
Roblès, R., 703 (Der.)
——, with Galliard, 524 (Fev.)
Robuschi, L., with Ottolenghi, Brotzu, La Face, & Brighenti, 123 (Mal.)
Rocca, G. C., 622 (Am.)
da Rocha Lima, H., 703 (Der.)
Rockefeller Foundation, 1006 (B.R.)
Rodenwaldt, E., 272, 815 (Z.)
Rodriguez, J. N., with Wade, 638 (Lep.)
Rodriguez, P. A., 477 (Oph.)
Roegholt, M. N., 394, 996 (Misc.)
Roelfsma, H. L., 403 (Misc.)
Rogers, L., 329 (B.R.), 646, 647 (Lep.)
Rogers, L. M., with Goldberger, Wheeler & Lillie, 886 *bis* (Pel.)
Rogowa, G. J., with Brussin, 589 (R.F.)
Rohardt, W. (501) (Misc.)
Rolland, P., with Dévé, 956 (Hel.)
Romanowa, K., with Roskin, 429, 862 (K.A.)
Romby, P., 576 (Mal.)
Romiti, C., 383 (Misc.)
de Rook, H. & Swellengrebel, N. H., 919 (Misc.)
——, with ——, 816, 820 (Z.), 915 (Misc.)
Root, F. M., 269, (293) (Z.)
Roques, A., with Gougerot & Bertillon, 670 (G.V.)
Roqués, P., 319 (Pl.)
Rose, F. G., 636, 646 (Lep.)
Rosenblatt, A., with Lourié & Kossarew, 506 (Und.)

Rosenfeld, V. D., with Doubrovinsky, Kranzfeld & Salamandra, 934 (Hel.)
Rosenholz, H. P. & Gilbert, M. J., 86 (R.F.)
Rosenthal, G., 138 (Mal.)
Roskin, G. & Romanowa, K., 429, 862 (K.A.)
—— & Schischliaiewa, S., 361 (S.S.), 725 (Z.)
Ross, G. R., 45, 46, 48, (Und.), 142 (Mal.) 894, 897 (Bl.)
—— & Martin, A. P., 44 (Und.)
Ross, I. C., 954 (Hel.)
Ross, R., 119 (Mal.) (501) (Misc.)
Ross, W. C., 684, (684) (Chl.), 856 (K.A.)
——, with Bagchi, K. N. & Roy, B. C., 677 (Chl.)
Rothermundt, M., with Prigge, 592 (R.F.)
Rotter, R., with Quast, 714 (Rab.)
Roubaud, E., 111 (Y.F.), 279, 810, 812, 821, 822, 830, 832 (Z)., 556 (Mal.).
—— & Weiss, A., 831 (Z.)
Roussel, B., 972 (Hel.)
Rowntree, L. C., with Hunt, McCann, Voegtlin & Eggleston, C., (500). (Misc.)
Roxas-Pineda, E., Nicolas, C. & Lara, C. B., 984 (Lep.)
——, with ——, 645, 983 (Lep.)
Roy, A. C., with Boyd, 642 (Lep.)
Roy, B. C., with Ross & Bagchi, 677 (Chl.)
Roy, M. M., 993 (Oph.)
Roy, N. N., 413 (Misc.)
Rubaschkin, W., Moldawskaja, W. & Pauli, S., 153 (Mal.)
Rubino, A. P., 98 (Fev.)
Rubino, P., with Varela & Garcia de San Martin, 724 (Z.)
Rubinstein, P. L., 925, 926 (Misc.)
——, with Kritschewski, 406 (Misc.)
Ruddock, J. C., 42 (Und.)
Rüdel, O., 981 (Lep.)
Rudolfs, W., 808 (Z.)
Ruge, H., 563 (Mal.)
Ruge, R., 557 (Mal.)
Ruiz, A., with Madinaveitia & Ramirez, 259 (Z.)
Rusk, G. Y., with Smith, 96 (R.F.)
Russell, A. J. H., 312 (Chl.)
—— & Sundararajan, E.R., (684) (Chl.)
Russell, H., (293) (Z.)
Russo, (927) (Misc.)
Rutherford, N. J. C., 913 (Misc.)
Ruys, A. C., 97 *bis* (Fev.)
Ryles, C. S. & Majumder, B. C., 917 (Misc.)

## S

Sabrazès, J., 612 (Jaun.)
Sachs, I., 993 (Oph.)
Saenz de Santa María y Marrón, R., 426 (K.A.)
Sagayam, A. D., 437 (Bb.)
Sagel, W., 591 (R.F.)
Sagredo, N., 289 (Z.)
Said, R., 478 (Oph.)
Saito, M., 801 *bis* (S.S.)
Saitzewa, E. V., 308 (Chl.)
Salamandra, E. G., with Doubrovinsky, Kranzfeld & Rosenfeld, 934 (Hel.)
Salamon, E., with Mutermilch, 352 *bis*, 797 (S.S.)
Salimbeni, A. T. & Sazerac, R., 98 (Fev.)
Sambon, L. W., 833 (Z.)
Sampoerno & Soetedjo, 398 (Misc.)
Sanarelli, G., 95 *bis* (R.F.), 488 (Misc.)
Sanarelli, J., 711 (Rab.)
Sanderson, E. S., & Smith, D. C., 746 (Myc.)
Sandground, J. H., 962 (Hel.)
Sandler, S. A., 58 (Sp.)
Sanford, A. H., 486 (Misc.)
Sankine, (974) (Hel.)
San Martin, A., with Schilling, 838 (Z.)
Sanmartino, R. 247 (Dys.)
Sannicandro, G., 661 (Y. & S.)
Santillan, P. & Palacios, G., 32 (Der.)
Sanyal, C., 421 (K.A.)
Saphir, O., with Scott, 508 (Und.)
Sappa, S., 507 (Und.)
Sarcar, S. L. & Gupta, B. M., 437 (Bb.)
Sardjito, M., 624 *bis* (Dys.)
—— & Postmus, S., 611 (Jaun.)
Sargent, J. C., 15 (G.V.)
Satov, T., 864 (Bb.)
Saunders, G., 788 (S.S.)
Saunders, G. F. T., 795 (S.S.)
Sautet, J., 225 (Am.)
Savage, P., 60 (K.A.)
Sawyer, W. A. & Bauer, J. H., 545 (Y.F.)
Sayed, F. A., 997 (Misc.)
Sayers, E. G., with Manson-Bahr, 220 (Am.)
Sazerac, R., Hosoya, S. & Stefanopoulo, G., 101 (Jaun.)
—— & Nakamura, H., 101 (Jaun.)
——, with Salimbeni, 98 (Fev.)
Scarlett, H. W., 483 (Oph.)
Schaburow, A., 712 (Rab.)
Schachsuwarly, M., 145 (Mal.)
Schaeffer, H. F., 888 (H.S.)
Schafer, H. (501) (Misc.)
Schapiro, S. L., with Brussin, 590 (R.F.)
Scharff, J. W., (158) (Mal.)
Schauder, H., 594 (R.F.)
van Schevensteen, A. F. C., 179 (Hist.)
Schewelewa, E. M., with Wolski, 563 (Mal.)
Schewtschenko, F. I., with Chodukin, 76 (K.A.)
Schiassi, F. & Merighi, G., 565 (Mal.)
Schichlajewa, S., with Roskin, 361 (S.S.)
Schijveschuurder, W., 470 (Hel.)
Schilling, C., 169 (Myc.), 368 (Misc.), 717 (Z.)
Schilling, V. & San Martin, A., 838 (Z.)
Schischliaiewa, S., with Roskin, 725 (Z.)
Schlirf, C., 491 (Misc.)
Schlossberger, H., 659 (Y. & S.)
—— & Wichmann, F. W., 235 (Dys.)
Schmidt-Weyland, P., with Glusmann, 711 (Rab.)
Schnitzer, R. & Silberstein, W., 347 (S.S.)
Schnürer, J., 196 (Rab.)
Schöbl, O., 6, 657, 662, (Y. & S.)
Schockaert, J., 600, 601 (Fev.)
Schoen, R., with Levaditi, 720 (Z.)
Schofield, A. T., 598 (R.F.)
Schönhöfer, F., with Schulemann & Wingler, 568 (Mal.)
Schott, A., with Feldt, 405 (Misc.)
Schuberg, A., 326 (B.R.)
Schüffner, W., 547 (Y.F.)
——, Mochtar, A., Proehoeman, S. & Honig, L., 544 (Y.F.)
—— & Sieburgh, G., 110 (Jaun.)
Schüffner, W. A. P., 605 (Jaun.)
Schule, P. A., 261 (Z.)
Schulemann, W., Schönhöfer, F. & Wingler, A., 568 (Mal.)

Schulmann, E., with Loeper & Lemaire, 610 (Jaun.)
Schulze, F. O., with Kroó, 494 (Misc.)
Schut, J., 673 (Pl.)
Schuurman, C. J. & Huinink, A. S. T. B., 919 (Misc.)
Schuurmans Stekhoven, Jr., J. H., 966 (Hel.)
Schwartz, B., 468 (Hel.)
Schwartzmann, A. I., 156 (Mal.)
Schweizer, A., 165 (Myc.)
Schwetz, 266, 284 (Z.)
Schwetz, J., 118 (Mal.), 408 (Misc.)
Scott, H., 266 (Z.)
Scott, J. A., 968 (Hel.)
Scott, L. C. & Herrmann, G. R., 867 (Bb.)
Scott, R. W. & Saphir, O., 508 (Und.)
Scriabine, K. I., (974) (Hel.)
Scrimaglio, E. F., 461 (Hel.)
Sdrodowski, P., 40 (Und.), 718 (Z).
Seagar, 550 (Mal.)
Seale, E. A., 480 (Oph.)
Sebenzow, B. M. & Adowa, A. N., 815 (Z.)
Sebsnzow, with Adova, 270 (Z.)
Sedan, J., 994 (Oph.)
Seibert, F. M., 222 (Am.)
Seiffert, W., with Uhlenhuth, 609 (Jaun.)
Seligman, with Labbé & Lomon, 954 (Hel.)
Sella, M., 915 (Misc.)
——, with La Face, 578 (Mal.)
Sellards, A. W., 105 (Jaun.) ,548 (Y.F.)
——, with Gay, D. M., 104 (Jaun.)
—— & Hindle, E., 539 (Y.F.)
——, with Mathis & Laigret, 538 (Y.F.)
—— & Theiler, M., 543 (Y.F.)
Selwyn-Clarke, P. S., 5 (Y. & S.), 540 (Y.F.)
Semikoz, T., 320 (Pl.)
——, with Bezsonova & Kotelnikov, 674 (Pl.)
Sen, A. N., 421 (K.A.)
Sen, P. B., with Brahmachari, 500 (Misc.)
Sénevet, G. & Champagne, R., 940 (Hel.)
—— & Prunnelle, M., 818 *bis* (Z.)
—— with Sergent, Edm. & Et. & Catanei, 552 (Mal.)
Senior-White, R., 553 (Mal.), 805 (Z.) 891 (Bl.)
——, with Knowles, 583 (B.R.), (158) (Mal.)
Séno, R., 38 (Der.)
Sepulcri, P., 269 (Z.), 573 (Mal.)
Sequeira, J. H., 14 (G.V.)
Sergent, E., 296 (Lab.)
Sergent, Ed. & Et. & Catanei, A., 727 (Z.)
——, —— & Senevet, G., 552 (Mal.)
Severinghaus, A. E., 949 (Hel.)
Severn, A. G. M., 178 (Hist.), (501) (Misc.)
—— & Evans, E. W., 625 (Dys.)
Seyfarth, C., 391 (Misc.)
Sfarčič, 571 (Mal.)
Shaha, B., (162) (Bl.)
Shakhov, S., (738) (Z.)
Shamsher Jang, with Naidu, 320 (Pl.)
Shannon, R. C. & Davis, N. C., 817 (Z.)
——, with —— 819 (Z.)
——, —— & del Ponte, E., 816 (Z.)
—— & del Ponte, E., 125 (Mal.), 820, 825 (Z.)
Shapshev, K. N., with Popov, 128 (Mal.)
Sharp, L. E. S., 646 (Lep.)
Sharp, N. A. D., 4 (Y. & S.) 472 *bis*, 473 *bis* (Hel.), (501) (Misc.), 648 (Lep.)
Shattuck, G. C., 381 (Misc.)
—— & Willis, P. T., 947 (Hel.)
Shaw, F. W., 22 (Myc.)
Shelton, C. F., 174 (Hist.)
Shimoda, T., with Abe, 600 (Fev.)
Shinn, H. L., 33 (Der.)
Shiraogawa, H., with Hirano, 238 (Dys.)
Shircore, J. O., 787 (S.S.)
Shore, C. A., 715 (Rab.)
Shortt, H. E., 61 (K.A.)
——, Das, S. & Lal, C., 419 (K.A.)
—— & Swaminath, C. S., 265 (Z.), 422 (K.A.)
Shrivastava, D. L., with Hughes, 395, 415 (Misc.)
Shropshire, J. B. & Zetek, J., 271 (Z.)
Shute, P. G., with James & Nicol, 573 (Mal.)
Sica, E., 747 (Myc.)
Sicé, A., 396 (Misc.)
Sidlick, D. M., 15 (G.V.)
Sieburgh, G., with Schüffner, 110 (Jaun.)
Silberstein, W., 348 (S.S.)
——, with Schnitzer, 347 (S.S.)
Silverman, D. N., 686 (Sp.)
Simon, I., 143 (Mal.)
Simpson, W., with Klotz, 112 *bis* (Y.F.)
Sinelnikov, A. M., 449 (Hel.)
Singh, Z., with Hodgson & Vardon, 413 (Misc.)
Sinnatamby, G. S., 702 (Der.)
Sinton, J. A., 140 (Mal.), 285, 824 (Z.), 421 (K.A.)
——, Bird, W. & Eate, S. N., 140 (Mal.)
——, with Christophers & Covell, 267 (Z.)
—— & Covell, G., 271 (Z.)
Sioe, K. T., 454 (Hel.)
Sirca, A. (579) (Mal.)
Sison, A. B. M. & Ignacio, M., 496 (Misc.)
Sitanala, J. B., 639 (Lep.)
Sitsen, A. E. (501) (Misc.)
Sivasambandan, R., 961 (Hel.)
Skelton, D. S., Malcolm, J. W. & Lloyd, R., 244 (Dys.)
Skvorzowa, E. D., 724 (Z.)
Slanetz, C. A., with McAlpine, 517 (Und.)
Sliwensky, M., 121, 136 (Mal.)
van Slooten, J., with Brug, 278 (Z.)
de Smidt, F., 321 (Pl.)
de Smidt, F. P. G., 22 (Myc.), 674, 675 (Pl.)
Smirnov, G. & Glasunov, M., 959 (Hel.)
Smirnova, E. I., 675 (Pl.)
Smith, C. E. & Rusk, G. Y., 96 (R.F.)
Smith, D. C., with Sanderson, 746 (Myc.)
Smith, E. C., 28 (Der.), 748 (Myc.), 978 (Lep.)
Smith, E. E., 888 (H.S.)
Smith, E. F. (501) (Misc.)
Smith, G. D., with Baumgartner, 56 (Sp.)
Smith, H., 756 (B.R.)
Smith, S. C., 256, 721, 722 (Z.)
Smits, E., with Baermann, 604, 605 (Jaun.)
Smorodinzew, J. A. & Adowa, A. N., 814 (Z.)
Smyly, H. J., 63 (K.A.)
Snijders, E. P., 400, 1000 (Misc.), 543 (Y.F.)
Snodgrass, W. R., with Browning, Cohen, Gulbransen & Phillis, 94 (R.F.)
Sobhy, M., 947 (Hel.) 990 (Oph.)
Soesilo, R., with Walch, 554 (Mal.)
Soetedjo with Sampoerno, 398 (Misc.)
Sokhey, S. S., Gokhale, S. K., Malandkar, M. A. & Billimoria, H. S., 688 (Sp.)
—— & Malandkar, M. A., 686 (Sp.)

Solovieuf, N., 469 (Hel.)
Solowjowa, J., with Glusmann, 710 (Rab.)
Songkla, M., with McGavran, 951 (Hel.)
Sonobe, K., 289 (Z.)
Sordelli, A. & Pacella, G., 292 (Z.)
Sorel, F., 847 *bis* (Y.F.)
Sorge, G., 839 (Z.)
Souchard, L., 987 (Lep.)
Soudakoff, P. S., 480 (Oph.)
South African Institute for Medical Research, 906 (Lab.)
South African Red Cross Society (Transvaal) & Union Department of Public Health, 572 (Mal.)
Speranza, U., 142 (Mal.)
Spillmann, 976 (Lep.)
——, Kissel, P. & Florentin, P., 981 (Lep.)
Squires, H. C., 567 (Mal.)
Ssinjuschina, M., with Lebedjeva, 89 (R.F.)
Ssutin, J., with Elbert & Jowelew, 196 (Rab.)
Stábile de Nucci, L., with Bruchmann, 245 (Dys.)
Sta. Cruz, J. Z., 392 (Misc.)
Stankoff, A. G., (974) (Hel.)
Stannus, H. S., 655 (Y. & S.)
Stanton, A., 363 (Misc.)
—— & Fletcher, W., 382 (Misc.)
——, —— & Symonds, S. L., 382 (Misc.)
Stawell, R. R., 462 (Hel.)
Steel, C. R., (664) (Y. & S.)
van Steenis, P. B., 221, 224 (Am.)
Stefanopoulo, G., with Pettit, 850 (Y.F.)
——, with —— & Aguessy, 850 (Y.F.)
——, with —— & Frasey, 851 (Y.F.)
——, with —— & Kolochine, 851 (Y.F.)
——, with Sazerac & Hosoya, 101 (Jaun.)
Stefanopoulo, G. J., with Hosoya, 608 (Jaun.)
Stein, A. K., with Pavlowsky, 287 (Z.)
——, with Pawlowsky, 288, 834 (Z.)
Steiner, G. & Steinfeld, J., 92 (R.F.)
Steiner, L., 8 (Y. & S.)
Steinfeld, J., with Steiner, 92 (R.F.)
Stephens, G. A., 874 (Bb.)
Stephens, J. W. W., 890 *bis* (Bl.)
—— & Owen, D. U., 149 (Mal.)
Stewart, A. D., 552 (Mal.), 733 (Z.)
Stewart, Jr., T. H., with McNabb, 569 (Mal.)
Stewart, W. B., 388 (Misc.)
Stiles, C. W. 251 (Z.)
Still, R. M. L., 561 (Mal.)
Stitt, E. R., 168 (B.R.)
Stodel, G., with Gaujoux, 599 (R.F.)
Stokes, A., Bauer, J. H. & Hudson, N. P., 537, 538 (Y.F.)
Stovarsol, Scientific Papers on, 584 (B.R.)
Straits Settlements, 208 (Lep.)
Strathairn, G. C., 542 (Y.F.)
Strempel, R., 594 (R.F.)
Strickland, C. & Chowdhury, K. L., 267 (Z.)
Strom, J., 456 (Hel.)
Stroud, R. J., 282 (Z.)
Struthers, E. B., 423 (K.A.)
Stuart, G., 907 (Lab.)
Stuart, M. A., 153 (Mal.), 615 (Am.)
Suárez, P. A., 671 (Pl.)
Suda, K., 950 (Hel.)
Suldey, E. W., 279 (Z.)
Sundararajan, E. R., with Russell, (684) (Chl.)
Sutherland, G. A., 873 (Bb.)
Suzaki, K., 237 (Dys.)
Swaminath, C. S., with Shortt, 265 (Z.) 422 (K.A.)
Swellengrebel, N. H., 555 (Mal.)
—— & de Rook, H., 816, 820 (Z.) 915 (Misc.)
——, with ——, 919 (Msc.)
Sydenstricker, E., with Goldberger, 439 (Pel.)
Symes, C. B., 819 (Z.)
Symonds, S. L., with Stanton & Fletcher, 382 (Misc.)

**T**

Takagi, S., 610 (Jaun.)
——, with Tanaka, 55 (Fev.)
Takahashi, S., 453, 940, 950 (Hel.)
——, with Hachiya, 679 (Chl.)
——, with Miyairi, 52 (Fev.)
Takaishi, T., 958 (Hel.)
Takano, R., 938 (Hel.)
——, Ohtsubo, I. & Inouye, Z. (684) (Chl.)
Takano, S., 941 (Hel.)
Takasugi, S., 2 (Y. & S.)
Takaya, J., 708, 710 *bis* (Rab.)
Takizawa, T., with Kanda, 991 (Oph.)
Taliaferro, L. G., with Taliaferro W. H. & Fisher, 149 (Mal.)
Taliaferro, W. H., with Cannon & Dragstedt, 836 (Z.)
——, with Coventry, 937 (Hel.)
——, Taliaferro, L. G. & Fisher, A. B., 149 (Mal.)
Tálice, R. V., 740 (Myc.)
Tanaka, H. & Takagi, S., 55 (Fev.)
Tanganyika Territory, 658, 842 (Y. & S.)
——, Ann. Rep. Bact. Lab., 294 (Lab.)
Tanner, F. W., with Wallace, 22 (Myc.)
Tao, S. M., 280 (Z.)
Tate, D. L., 130 (Mal.)
Taylor, J., Martin, C. de C. & Thant, U., 866 (Bb.)
Tchechkoff, A., with Ponomareff, 191 (Rab.)
Tchechkow, A. M., 709 (Rab.)
——, with Ponomarew, 709 (Rab.)
Teodosiu, T., with Jonnesco & Valter, 191 (Rab.)
Thakur, H. L. S. L., with Brahmachari, 435 (Bb.)
Thant, U., with Taylor & Martin, 866 (Bb.)
Thaysen, 685 (Sp.)
Theiler, M., with Sellards, 543 (Y.F.)
Theodor, O., with Adler, 65, 75, 428 (K.A.)
Theodore, J. H., 403 (Misc.)
van Thiel, P. H., 108 (Jaun.) 468 (Hel.), 821 (Z.)
Thierfelder, M. U., 668 (G.V.)
Thierfelder-Thillot, M., 430 (Bb.)
Thillot, M. T., 17 (G.V.)
Thomas, G. C., 194, 715 (Rab.)
Thomson, (313) (Chl.)
Thomson, J. G., 575 (Mal.)
——, with Hindle, 859 (K.A.)
Thomson, J. H., 457 (Hel.)
Thorne, G. W., with Hein & McCalla, 388 (Misc.)
Thrower, R., 889 (H.S.)
Tilmant, J., (927) (Misc.)
Tiprez, J. & Moulin, H., 936 (Hel.)
Tirrill, Jr., W. O., with Jones, 651 (Lep.)
Tisseuil, J., 935 (Hel.)

Tixier, L., Favre, M., Morenas, E. & Petouraud, C., 217 (Am.)
Todd, K. W., with Chesterman, 342 (S.S.), 659 (Y. & S.)
Todd, M. L., 14 (Und.), 702 (Der.)
Tohtaro, K., with Ando, 453 (Hel.)
Tomb, J. W., 313, (313), (684) (Chl.)
Tootell, G. T., 458 (Hel.)
Tornabuoni, G., with Lombardo, 13 (Y. & S.)
Torrademé, 77 (K.A.)
Torres, C. M., 386 (Misc.), 719 *ter* (Z.), 741 (Myc.)
—— & de Azevedo, A. P., 132 (Mal.)
Torres, O., 201 (Lep.)
Touraine, with Babonneix & Widiez, 203 (Lep.)
Tournier, E., (684) (Chl.)
Towler, H. H. & Walker, J. E., 99 (Jaun.)
Toyoda, K., 449 (Hel.)
Trabadoros, A. G., 892 (Bl.)
Trabaud, 620 (Am.), 877 (Bb.)
Trachoniotovsky, 122 (Mal.)
Transactions of the Royal Society of Tropical Medicine and Hygiene, 302, 908 (Lab.) 363 (Misc.)
Trapesontzewa, C., 991 (Oph.)
Trapezontzewa, C., 477 (Oph.)
Trensz, F., with Nessmann, 946 (Hel.)
Treston, M. L., 401 (Misc.)
Troisic, J., with Deschiens & Limousin, 265 (Z.)
Troisier, P., Deschiens, R., Limousin, H. & Delorme, M., 963 (Hel.)
Trolli, G., 794 (S.S.)
Tropp, G., with Kikuth, 577 (Mal.)
Tsakalotos, A. E. & Choremis, K., 562 (Mal.)
Tsuyuki, K., 958 (Hel.)
Tsvétaeff, A. A., (974) (Hel.)
Tullio, P., with Albertoni, 441 (Pel.)
Turkhud, D. A., 299 (Lab.)
Tutunji, D. F. (501) (Misc.)

U

Uganda Protectorate, 295, 905 (Lab.)
Uhlenhuth & Seiffert, W., 609 (Jaun.)
Underhill, F. P. & Mendel, L. B., 885 (Pel.)
United Fruit Company, Boston, Mass., 134 (Mal.) 160 (Bl.)
United States Naval Medical Bulletin, 120 (Mal.), 190 (Rab.)
Unna, Jr., P., 643 (Lep.)
Urchs, O., 131, 570 (Mal.)

V

Vaccarezza, R. F., with Destefano, 667 (C.Bu.)
Vad, B. G. & Mohile, G. B., 137 (Mal.)
Valenti, E., 45 (Und.)
Vallée, H., 706 (Rab.)
——, with Marie & Remlinger, 706 (Rab.)
Valter, B., with Ionesco, 191 (Rab.)
——, with Jonnesco, 191 (Rab.)
——, with —— & Teodosiu, 191 (Rab.)
Van dam Trinh, with Bedier, 6 (Y. & S.)
Van den Branden, F., 336, 340, 790, 792 (S.S.)
——, Clevers & Moreels, 341 (S.S.)
—— & Henry, E., 133 (Mal.)
—— & Moreels, W., 747 (Myc.)
van den Hoven van Genderen, J., (197) (Rab.)
Van der Gugten, F. E., 1001 (Misc.)
Van der Hoeden, J., 313 (Und.)
Van der Scheer, J., with Landsteiner, 495 (Misc.)
Van der Weyde, A. J., 176 (Hist.)
Vanlande, with Codvelle & Grandclaude, 941 (Hel.)
Vardon, A. C., 193 (Rab.)
——, with Hodgson & Singh, 413 (Misc.)
Varela, Garcia de San Martin, H. & Rubino, P., 724 (Z.)
Vasudevan, A., 263 (Z.)
——, with Bradfield, 694 (Der.)
Vaucel, M., with Ledentu, 118 (Mal.), 334, 335, 338, 339, 340 (S.S.)
Vavilova, N. M., 258 (Z.)
Vaz, E., 627, 629 (Dys.)
Vedder, E. B. & Feliciano, R. T., 863 (Bb.)
Veilchenblau, 43 (Und.)
Vellard, J., with Brazil, 731 (Z.)
de Vera, B., 206 (Lep.)
——, with Eubanas, 206 (Lep.)
——, with Lara & Eubanas, 983 (Lep.)
Verga, P., 751 (Myc.)
Vergeer, T., 950 951 (Hel.)
Vergely, A., 382 (Misc.)
Vernencar, H. P., with de Mello, 578 (Mal.)
Viala, J., with Manouélian, 189, 707 *ter* (Rab.)
Vialard & Paponnet, 619 (Am.)
Vidal Guemes, A. & Arias, F. J., 36 (Der.)
Vigoni, M., with Prum, 373 (Misc.)
Vilardell, J., 260 (Z.)
Villegas, C., with Biglieri & Oyarzabal, 192 (Rab.)
Villela, G. C., 979 (Lep.)
Vincent, G. E., 1006 (B. R.)
Vincent, H., 96 (R.F.)
Viswalingam, A., 479, 992 (Oph.)
Vitón, A., 201 (Lep.)
Vitug, W. & Ignacio, P., 131 (Mal.)
Vlassov, J., 914 (Misc.)
Voegtlin, C., with Hunt, McCann, Rowntree & Eggleston, (500) (Misc.)
Vogel, R., with Martini, Irfan & Mahmud, 810 (Z.)
de Vogel, W., 544 (Y.F.), 668 (G.V.), 876 (Bb.)
Vogel, W. L., 255 (Z.)
Voizard, F., with Morvan & Baize, 448 (Hel.)
Vorobiew, 143 (Mal.)
de Vries, E., 131 (Mal.)

W

Waddell, J., with Elvehjem, 498 (Misc.)
Wade, H. W., 734 (Z.)
—— & Rodriguez, J. N., 638 (Lep.)
Wagner-Jauregg, J., 150 (Mal.)
Wakefield, E. G. & Hall, W. W., 322 (H.S.)
——, with Hall, 322 (H.S.)
Walch, E. & Soesilo, R., 554 (Mal.)
Walch, E. W., 833 (Z.)
——, with Brug, 126 (Mal.)
—— & Walch-Sorgdrager, G. B., 102 (Jaun.)
Walch-Sorgdrager, G. B., with Walch, 102 (Jaun.)
Waldorp, C. P., 221 (Am.)
Waldron, G. D. K., 646 (Lep.)
Walker, H. M., 142 (Mal.)

Walker, J. E., 109 (Jaun.)
——, with Towler, 99 (Jaun.)
Walker, J. H. C. (474) (Hel.)
Walkiers, J., 945 (Hel.)
Wallace, G. I. & Tanner, F. W., 22 (Myc.)
Wallon, M., 794 (S.S.)
Wallon, R., with Kadaner, (362) (S.S.)
Walravens, P., 459 (Hel.)
Walton, C. L. & Wright, W. R., 452 (Hel.)
Waltz, A. D., with Gittings, 257 (Z.)
Wancolle, A., with Gomes & Leitão, 643 (Lep.)
Warasi, W., 147, (158) 575 (Mal.)
Warren, S. H., 231 (Dys.)
Watkins, W. W. & Lake, G. C.,504 (Und.)
Wats, R. C., Loganadan, A. D. & Conquest, C. N., 631 (Dys.)
Watson, A. J., 368 (Misc,)
Watson, J., 601 (Fev.)
Watson, M., 307 (Chl.)
Watt, J. M. & Brandwijk, M. G., 412 (Misc.)
Wattiez, N., 408 (Misc.)
van Waveren, W. F. J., 988 (Lep.)
Wayson, N. E., 454 (Hel.)
Webb, W. L. & Holliday, M., 11 (Y. & S.)
Wehrheim, H. L., 670 (G.V.)
Wehrle, W. O., 571 (Mal.) 699 (Der.) 846 (Y.F.)
Weise, W., with Fischer, 132 (Mal.)
Weiss, A., with Roubaud, 831 (Z.)
Weiss, C., 685 (Sp.)
—— with Galbreath, 747 (Myc.)
Weiss, P., 72 (K.A.), 526 (Fev.)
Wei Yu Lin, 663 (Y. & S.)
Wellington, A. R., 910 (Misc.)
Wenckebach, K. F., 872 (Bb.)
——, with Aalsmeer, 871 (Bb.)
Wenyon, C. M., 800 (S.S.)
Werblunsky, S., with Brumpt, 458, 945 (Hel.)
Werner, H. (579) (Mal.)
Wesenhagen, G. F., 561 (Mal.)
West African Medical Journal, 162 (Bl.)
Westphal, K., 893 (Bl.)
Wethmar, R., 153 (Mal.)
Wheatley, A. W., 208 (Lep.)
Wheeler, G. A., with Goldberger, 444, 445 (Pel.)
——, with ——, Lillie & Rogers, 886 *bis* (Pel.)
White, E. B. & Hadfield, G., 442 (Pel.)
White, E. F. & Dove, W. E., 34 (Der.)
White, G. F. & Dove, W. E., 701 (Der.)
White, R. J., 641 (Lep.)
Whitehead, R. W., with Hall, 409 (Misc.)
Whitmore, W. H., 19 (C.Bu.)
Wichmann, F. W., with Schlossberger, 235 (Dys.)
Widiez, with Babonneix & Touraine, 203 (Lep.)
Wight, T. H. T. & Prince, L. H., 256 (Z.)
Wilbert, R., 102 (Jaun.)
——, with Blondin & Delorme, 189 (Rab.)
——& Delorme, M., 102, 611 (Jaun.)
Wilkinson, S. J., with Dodd, 322 (H.S.)
Willcocks, W., 557 (Mal.)
Wille, 794 (S.S.)
Williams, F. E., with Fairley, 458 (Hel.)
Williams, G. A., 658 (Y. & S.)
Williams, R. G., 152 (Mal.)
Williamson, K. B., 813 (Z.)
Willis, D., with Jaffé, 835 (Z.)
Willis, P. T., with Shattuck, 947 (Hel.)
Willmore, J. G., 599 (R.F.)
Wilmoth, C. L., 665 (C.Bu.)
Wilson, F. P., 249 (B.R.)
Wingler, A., with Schulemann & Schönhöfer, 568 (Mal.)
Winkelman, N. W., with Klaudèr, 440 (Pel.)
Winter, F. A., 172, 580 (Hist.)
Winton, F. R., 411 (Misc.)
Wirssaladse, S., 618 (Am.)
Wiseman, W. R., 230 (Dys.)
Wofcy, I., 202 (Lep.)
Wolff, J. W., 234 (Dys.), 416 (Misc.) 908 (Lab.)
Wollman, E., 515 (Und.) 825 (Z.)
Wolski, M. E. & Schewelewa, E. M., 563 (Mal.)
Wooley, J. C., with Denney, 641 (Lep.)
Woollard, H. H., 876 (Bb.)
Wordley, E., 510 (Und.)
Worms, G. & Bidault, R., 479 (Oph.)
Woskressenski, B. & Brenn, H., 572 (Mal.)
Wright, H. W. S., 218 (Am.)
Wright, R. E., 483 (Oph.)
Wright, W. R., 253, 267 (Z.), 940 (Hel.)
——, with Walton, 452 (Hel.)
Wu Lien-Teh, 673 (Pl.)
Wyckoff, H. A., with Bloomfield, 691 (Sp.)
Wyss, H., 961 (Hel.)

## Y

Yamaguchi, M. & Yamaguchi, M., 971 (Hel.)
Yano, A., 473 (Hel.)
Yaoi, H. & Yejima, S., 235 (Dys.)
Yarrow, H. C., 733 (Z.)
Yasuyama, K., 191 (Rab.)
Yejima, S., with Yaoi, 235 (Dys.)
Yokogawa, S., 467 (Hel.)
Yorke, W., 363 (Misc.)
—— & Adams, A. R. D., 226 (Am.)
Yoshino, J., with Katsurada, 534 (Fev.)
Yoshitomi, T., 238 (Dys.)
Young, C. W., 419 (K.A.)
—— & Hertig, M., 64, 424 (K.A.)
Young, T. C. M., 397 (Misc.)
Young, W. A., 541 (Y.F.)
Yue, M. K., 677 (Chl.)
Yushyo-Kei, with Oshiro, 875 (Bb.)

## Z

Zachert, M., 478 (Oph.)
Zadek, E., 691 (Sp.)
Zavagli, V., 799 *bis* (S.S.)
Zeisler, E. P., 23 (Myc.)
Zeiss, H., with Popow, 890 (Bl.)
Zeitlin, A., with Isabolinsky, 190 (Rab.)
Zerfas, L. G., with Nye & Cornwell, 998 (Misc.)
Zetek, J., 272 (Z.)
——, with Shropshire, 271 (Z.)
Zia, S. H. & Foster, J. H. (501 )(Misc.)
Ziemann, H., 661 (Y. & S.), 929 (B.R.)
Zotta, G., 268 (Z.), 934 *bis* (Hel.)
Zozaya, C., 425 (K.A.)
Zschucke, (738) (Z.)
Zuelzer, M., 609 (Jaun.)
——, with Baermann, 602 (Jaun.)
Zwetkowa-Pirogovskaja, A. E., with Kopp & Dimitrieva, 934 (Hel.)

# INDEX OF SUBJECTS.*

Compiled by MISS M. H. JAMES.


**ABORTUS FEVER,** *see* **UNDULANT and ABORTUS FEVER**

**Ainhum**
a Band Scleroderma, **702**
Incidence
Ceylon: Rare Cases, **702**
South Africa, in Bantus, 376

**AMOEBIASIS** (AMOEBIC DYSENTERY, LIVER ABSCESS, &c., *see also* **DYSENTERY**), 212–47, 614–35
Amoebae and Entamoebae associated with Carriers of, **615**
of Dysentery, and Skin Ulcerations, **217**
in Man, Cysts of, Quadrinucleate, Plurality of, **216**
Species referred to *histolytica*
Cultivation of, from Cysts, **227**
in Duodenal Contents, **219**
Extracts of Haemolytic, Cytolytic, and Complement-Binding Properties of, **228**
Infections with, Diagnosis of, Complement Fixation in, **623**
Lab. Exam. of Stools for, **228**
Life History, **226**
AMOEBIASIS, **213, 214, 215** *ter*
Incidence
Age: Children,
Treatment for, **224**
Infants, **615**
Geographical
Andaman Islands: Port Blair, **631**
China, **214**
Fever in, **218**
Cochin China, 369
Colombia
Magdalena Coast Lands, 379
Dutch East Indies, **215** *bis*
Guatemala, 378
India, British, **215** *bis*
Poona, 632
Irak, North, 244
Lagos, 243
Morocco, **614**: Fez, 614
Palestine, 224, **615**: Tiberias, **614**
Peru: Lima, 615
Turkey
Constantinople: Epidemic, 621
U.S.A.: New Orleans **213**
Laboratory Examination of Stools for *E. histolytica*, **228**
Observations on, **614**
from the Pathologist's Stand-point, **216**
Prophylaxis, **222**
of Rat and Man, **616**
Sequelae, Risks and Treatment of, **634**
Sigmoidoscopic Appearances in Different Stages, **220**

**Amoebiasis**—*cont.*
Sporadic Case, **620**
Titles of Unnoticed Papers, 247, 635
Treatment, **225**
in Children, **224**
for Palestine, **615**
Drugs Employed in, Experiments with, **225**
and Prevention, **222**
Recent Advances in, **220**
in the Tropics, **215** *bis*
Various Methods
Ipecacuanha and its Substitutes, **222**
Rivanol, **622**
Spirocid, **223**
Stovarsol, **222**
Trio-Iodo Ercé, **622**
Uranium Salts, **223**
Yatren, Emetine, and Stovarsol, **221** *bis*
AMOEBIC ABSCESS of Lung, with Pleurisy, Cured by Emetine, **619**
AMOEBIC CYSTITIS, **622**
AMOEBIC DYSENTERY
and Carriers, **615**
Diagnosis, **212**
of *E. histolytica* Infections, Complement Fixations in, **623**
AMOEBIC FEVER, **218**
AMOEBIC HEPATITIS, **616**
AMOEBIC INFECTION
Chronic, Vermiform Appendix Specially Affected, **620**
Rectal Carcinoma and, **219**
AMOEBIC NEPHRITIS, and Lung Gangrene, **621**
ATYPICAL, Sellards' and Baetjer's Paper on, Remarks on, **623**
Cerebromeningeal Forms of, **620**
EXTRA-HEPATIC, Surgical, **218**
Macrophage, the, Sellards' and Baetjer's Paper on, Remarks on, **623**
PERIBRONCHITIS AMOEBIANA, Bronchitis and, **620**
PULMONARY
Cases of, **618, 619** *bis*, **620, 621**
Incidence
China
Yangtse-Kiang Region, 619
France
Paris, Suburb of, **618**
Turkey: Constantinople, 621
Treatment by Emetine, Stovarsol and Treparsol: Cure, **619**
URINARY: Katanga, **621**
LIVER ABSCESS
Cases of, **617** *ter*, **618** *bis*
Diagnosis of, and of Subdiaphragmatic Abscess, **618**
Historical References to, **174**


* The numbers in heavy type refer to the titles of papers summarized.

**Amoebiasis**—*cont.*
LIVER ABSCESS—*cont.*
Incidence
Geographical
Colombia, 379
South Africa, 376
Race : Africans, **219** *ter*, 376
Pleuropulmonary Syndrome in, **618**
Treatment, **224, 617**
Emetine
Cure, **219, 617**
Out-Patient Case, **224**
Radiology and, **607**

**BERI-BERI,** 430–8, 863–79
Beriberi Heart, the, **871, 872, 873, 874**
Complications in, **875**
Epidemic Dropsy
Blood Picture, General, and Biochemical, **438**
Etiology of, Investigations into, **435**
in Fiji, in Indians, **437**
in India, **434, 435** *bis*, **437** *ter*, **438, 868**
Experimental Production of, **433**
Hypovitaminosis as Basis for, **430**
Incidence, All forms
Age : Infantile, **432, 869**
Class
Japanese Army, 864, 865
Military Students : Brazil, **867**
Geographical
Brazil : Ceara, **867**
Cochin China, 369
Dutch East Indies, 870, 871, 872, 876
Formosa, 875
Honduras : Disease Resembling, 875
India, **434** *sqq.*
Burma, **866**
Madras, 863
Japan, 864, **865**
Panama, **432**
Philippine Islands, 863, **869, 874**
U.S.A.
Louisiana with Cardiac Manifestations, **867**
on Japanese Ships, **433**
Neuritis in Filipino Parturients, **874**
Not a Disease of Dietetic Origin, **430**
Oedema Theory of, **870**
Polyneuritis, Beriberi-like, **875**
POLYNEURITIS, AVIAN
Polyneuritis Columbarum, **878**
Vitamin B Experiments on, 370
Pre-Beriberi Condition in Japan, **865**
Prophylaxis
Anti-Beriberi Vitamin Preparations, **876**
[in Japan], **864**
Rices
Beriberi-preventing, Standard for, **863**
Nutritive Value of, Irrigation as Influencing, **863**
and Starvation, Nerve-endings in, Structural Changes in, Nature of, **876**
Test in, of Aldrich and Maclure, **877**
Treatment, Rational, **434**
Vitamin-B. Deficiency in Infants : Nauru Island, **869**

**Black Death,** *see* **PLAGUE**

**BLACKWATER FEVER,** 159–62, 890–903
Bilirubinaemia in, and in Malignant Tertian Malaria, **894**
Case Records, **161, 162**
Clinical Notes, **160, 161**
Erythrocyte Fragility Test, **897**
Haemoglobinuria, Malarial, **892**
Haemolytic Process in, **899**
Haemolysis, Acute, after Quinine Treatment in Inoculation Malaria, **893**
Incidence
Geographical
Algeria, 162
Argentina, 892
Asia, South-West, **890**
Cochin China, 369
Colombia, 379, 380
Cuba, 160
Europe, **890**
Greece : Patras, 892
Haiti, 161
Honduras, 380
India, 364
Kenya, 161
Russia, **890,** 899
Uganda, 1926, **890**
Race : African Natives, **891** *bis*
Unassociated with Quinine, **162**
Identical Delirium in Repeated Attacks at Long Intervals, **891**
Mechanism of, and of Certain Allied Conditions, **901, 903**
Medical Officer and Microscope in West Africa, **162**
Pathogeny, **159, 160** *ter*, **899, 900**
Titles of Unnoticed Papers, 162
Treatment, **892**
Haemostatic Serum, **161**
Sod. Bicarb., Intravenous, **893**

**CHOLERA,** 305–13, 677–84
Bacteriology
Bacteriophage, The, in, **677**
Work of the Enquiry on : Kasauli, **308**
*Vibrio cholerae*
Agglutinability of, and of Cholera-like Vibrios, **678**
Blood Agglutination Caused by Certain, **679**
Complement Fixation Reaction with, The Impedin Phenomenon of, **679**
Demonstration of, Rapid, by a Method of Serum Diagnosis, **306**
Form-Variability of, **678**
Isolated from Neva Water in Absence of Epidemic, **308**
Non-agglutinating, **305**
Peculiarities of, **678**
Peritonitis due to, Protective Action against, of Extract of Blood Platelets of Immune Rabbit, **311**
Specific Substance, A, of the, **310**
Strains of, in 1927 Epidemic, **679**

**Cholera**—*cont.*
Bacteriology—*cont.*
*Vibrio cholerae*—*cont.*
Structure of, with Reference to its Immunizing Properties, **680**
Vitality of, on Chinese Paper Money, **310**
Cholera Bilivaccine and Anti-Cholera Vaccine: Comparative Field Test, **312**
Cholera Toxin and Antitoxin, **310**
Control of, *see* Prophylaxis, *infra*
Epidemic Activity of, Forecasting of, 306
Gastro-Intestinal Tract, The Auto-Sterilizing Mechanism of, **307**
Immunization against, *see also* Prophylaxis
Extracts of Intestinal Mucous Membrane and, **681**
Immunizing Properties of *V. cholerae* (*q.v. supra*), **680**
Oral, **311, 212**
Incidence
China, Hinghwa City, Epidemic, Sept. 1927, **677**
Cochin China, 369–70
India, 308
Assam
Cachar: Sporadic Type: Organism Unknown, **305**
Curve and Chart concerning, 306–7
Bengal
Endemic, Prevalence in, of *V. cholerae*, Non-agglutinating, as Mutation Forms, **305** *bis*
Calcutta Region, Results of Inoculation, **683**
Malaya, on Rubber Estates, Control of, 307
Persia: Abadan, Blood-Pressure Readings at, **309**
Philippine Islands
Epidemic, Control of, 308
Rural, 305
Infection, from Drinking-Water, **305**
Lecture, A, on, **313**
Prophylaxis
Control Measures on Rubber Estates, **307**
Inoculation and Hospitalization for Control of Epidemics, **308**
and Treatment (*q.v.*) of, Use in, of Dilute Acids, **307**
Vaccination = Inoculation
Oral, **490**
with Toxoid, Experimental Basis of, **681, 682**
of U.S. Marines at Shanghai, **682**
Value of, **683**
Titles of Unnoticed Papers, 313, 684
Transmission, **684**
Treatment, **677**
Blood-Pressure Readings as Aid to, **309** *with chart*
General, by Intravenous Hypertonic Saline Injections, A Criticism of, **313**
Various Methods
Acid and Cresol, **677**

**CLIMATIC BUBO,** 17–19, 665–8
*A propos* Clement's Paper on, **19**
Article on, **19**
Case Records, **19**
Experimental and Clinical, **18**
Incidence
Germany: Breslau, 365
India, 365
Ivory Coast, Abidjan, **18**
Note on, **17**
Purpura following, **666**
Skin Reactions in, **665** *bis*, **666** *bis*
Subacute, **18**
Incidence
U.S.A.
Baltimore Contracted elsewhere, **665**
Treatment, **667**
with Symptoms of Acute Rheumatism, **665**
Treatment
Stibenyl, **667**
Tartar Emetic, **667**
Vaccine, **19**

**DENGUE, PAPPATACI AND UNCLASSED FEVERS,** 54–5, 527–36
Akiyami Fever
Shidzuoka Prefecture, Japan, **55**
Examination of Field Boles (Voles ?) in, **55**
Dengue
Defective Gutterings and, **528**
Incidence
India, 364, 365
Natal: Durban: Epidemic, **54**
New Caledonia, 55
West Africa, Differentiation of, **55**
Orchitis and Ovaritis Complicating, **55**
Therapeutic Trials in, **527**
Urine, in, **528**
Fever, Undiagnosed: Gilgit Agency, **534**
Five Day (Trench) Fever; Japan, **534**
Infectious Exanthem
Epidemics of, on the Mediterranean Coast, **532, 533**
Marseilles Fever
Brill's Disease and Tropical Typhus, Are they Identical? **530**
Pappataci (Phlebotomus) Fever
Distinct from Dengue, **55**
Incidence: India, 364, 365
Pseudo-Dengue or Red Congolese Fever, **529** *bis*
Titles of Unnoticed Papers, 535

**DERMATOLOGY, TROPICAL** (*see also* **MYCOLOGY, TROPICAL**), 26–39, 692–705
Diseases
Amazon Foot: D.E.I., **37**
Blastomycosis, Systemic; Australia, **32**
Caraate or Pinta
Incidence
Colombia, **36,** 380
Mexico, 378
Venezuela; Barinitas, 378
Cases seen in North British India, **26**

**Dermatology, Tropical**—*cont.*
DISEASES—*cont.*
Chapetonada, or Climatic Dermatitis : Arequipa, **36**
Creeping Disease = Larva migrans, **33**
Case after Chiggers, **702**
Causation, Dogs and Cats concerned in, **34**
Cause of, **701**
Incidence
Argentina, 33
Australia, **700**
Greece, Wax Models of, **701**
U.S.A., Southern States, 34
Treatment, **33**
Dermatitis
Cheloid Blastomycotic, **39**
Flit-, **699**
Seborrhoeic, or Pityriasis Capitis, Caused by *Malassezia ovale*, **697**
Septic, Cured by Specific Dressings, **37**
Dermatomycoses, Formosan, **26**
Dermatoses, Climatic and Regional
Argentina, **36**
Peru, **36**
Itching, in the East, produced by Barley, **34**
Discomyces of Leg ; Argentina, **32**
Dhobie Itch, D.E.I., 371
Epidermophytoses, Treatment of, Need for Research in, **698**
Erythema, Simulating Scarlatina, **37**
Favus,
*Achorion schönleinii* Cultivated from Peripheral Blood in, **29**
in Mongolia, Causal Fungus, **28**
Flit-Dermatitis, **679**
Forms seen at Calcutta (1926), 363
Fungus Disease of the Skin, **697**
Impetigos, Some Tropical, **704**
Keloid, Generalized, **38**
Larva Migrans, *see* Creeping Disease *supra*
Lupus Erythematosus, Gold Treatment, of, **704**
Madura Foot, *see* Mycetoma Pedis, *infra*
Maduromycosis, Etiology, with Report on Two New Species, U.S.A., **29**
Moniliases, Dermal, in Natives of West Africa, **28**
Mycetoma(s)
Actinomycosis Type : Treatment, **694**
Black Grain : Algiers, **30**
Incidence, all Forms
Algeria, **30**
Histology, Parasitology, etc., **692**
India : Madras, **694**
Brazil, **31, 639**
Italy and Brazil, Causal Organism, **31, 693**
San Salvador
Actinomycotic, with Yellow Grains, **692**
Transvaal, Northern, in Natives, **692**
U.S.A.
Florida (contracted in), in Negro, **694**

**Dermatology, Tropical**—*cont.*
Mycetoma(s)—*cont.*
Incidence—*cont.*
U.S.A.—*cont.*
Georgia, in Negro, with Black Grains : Believed First Case **693**
Pedis
Incidence
Argentina, **32**
Somalia, Southern, Two New Parasites of, **31**
Mycosis Forms due to *Hormodendrum* spp., **695** *ter*
Necrosis, Streptococcal Subcutaneous, with Gangrene of Skin, **38**
Nocardiases, South African, **30**
Osmidrosis Axillaris : Japan, **39**
Páaj : Argentina, **699**
Peculiar Skin Affection in a Chinese, **38**
Piedra, Paraguayan, **697**
Pinta : Yucatan, **35**
Porokeratosis ; Causation : Treatment, **702**
Pseudo-Creeping Disease, **33**
Pseudo-Leprosy or Punudos, an Unclassed Disease
Guatemala, **703**
Lagos, **978**
Pseudo-Scabies. Infection by a New Parasite, **705**
Psoriasis, in a Black Man : Pondicherry, **704**
Specific Form in E. Mongolia, **698**
Sporotrichosis, in South African Native Miners, **696**
Tinea cruris in India : Manifestations : Diagnosis : Treatment, **27**
Trichophytosis ; U.S.A., Dermatological Problem in the Southern States, **697**
Ulcers
of Legs
Incidence
Belgian Congo, 374
Colombia
Magdalena Coast Lands, 379, 380
South Africa, in Bantus, 375–6
Venezuela, 377
Treatment, **389**
Ulcus tropicum
Incidence
French West Africa, in Natives, 373
Liberia : Resistant Form, **699**
Somalia, **700**
Treatment, **34**
Pyotropin, **35**
Vitiligo Lesions, Indian attitude to, 26 *&n.*
FUNGI AND PARASITES associated with Formosan, 26
FUNGI
*Achorion schönleinii* from Favus Case, **29**
*Aspergillus mycetomi villabruzzii*, New Parasite of Madura Foot, **31**
*Grubyella Schönleinii* var. *Mongolica*, n.v., in Mongolian Favus, **28**

**Dermatology, Tropical**—*cont.*
FUNGI AND PARASITES—*cont.*
FUNGI—*cont.*
*Glenospora clapieri* of Black Grain Mycetoma, **30**
*Glycophagus* causing Itch, 34
*Hemispora stellata*, Study of, **696** *bis*
*Madurella*, Two n. sp., **29**
*Mucor mycetomi*, New Parasite of Madura Foot, **31**
*Scedosporium apiospermum*: Mycetoma, due to; **31, 693**
*Sterigmatocystis tropicalis* n. sp., Pathogenic to man: Brazil, **694**
Tineae, Forms seen in New Orleans, **28**
*Trichophyton Louisianicum*, **28**
Two New, of Madura Foot, **31**
PARASITES
*Ancylostoma brasiliense* and *A. caninum* as Cause of Creeping Eruption, 34
Spirochaetes believed to Cause Amazon Foot, 37
Title of Unnoticed Paper, 705

**DYSENTERY,** BACILLARY, CILIATE, FLAGELLATE, MIXED AND UNCLASSED (*see also* **AMOEBIASIS**), 229–47, 624–35
BACILLARY
*Bacillus*(*i*)
*dysenteriae*
Antigens of, and of Typhoid and Paratyphoid Bacilli, **487**
Bacteriological Diagnosis of, Difficulties, in, **490**
Classification of, **229, 230**
Cultures of, Proteolysis in, Course of, **628**
Having Cholera Red Reaction, **238**
Isolation of, New Medium for, **628**
Prognosis of Dysentery in Children, Dairen, according to Type of, **238**
Flexner, Epidemic due to, **231**
Flexner-Hiss Group, Variations in a, **233, 234**
Lactose Fermenting (Sonne's Group III), **232**
Unusual Infections with **230**
Shiga, Anti-Shiga Lytic Principle in Waters, Cochin China, **628**
Influence of Bivalent Metallic Salts against, **629**
Vaccine of, Immunological Characteristics of, **629**
Shiga-Kruse, Epidemic due to, D.E.I., **624** *bis*
Sonne, Infection with, Egypt, **624**
Enterobacillus, an, in Enteritis, **238**
*paradysenteriae*, from Fatal Case, **629**
Pseudo-dysentery, Cultivated from the Disease in Deli, Serological Grouping of, **234**
Bacteria of the Metadysentery Groups
Action of on Various Starches, **236**
Recurrent Diarrhoea and Colitis due to, Etiology of, **230**
Causal Organisms, **231**

**Dysentery**—*cont.*
BACILLARY,—*cont.*
Bacteriology—*cont.*
Causal Organisms—*cont.*
Agglutination of, by Sera of Lunatics, **234**
Diagnosis, Rapid Method, **626**
Dysenteric Infections, Unusual, **230**
Enteritis, an Enterobacillus in, **238**
Incidence
Age, **238**
Childhood, **626**
Range of, in **625**
Geographical
Andaman Islands; Port Blair, **631**
Cochin China, 369, **626, 628**
Dairen, in Children, **238**
Dutch East Indies
Bantam and Weltevreden Epidemics, **624**
Sumatra: Deli, **234**
Egypt, **624**
England
Smethwick Epidemic (1927), **625**
India
Poona, **632**
Secunderabad, **631**
Irak, Northern, 244
Manchuria: Prophylaxis, **633**
Palestine, 614
Philippine Islands Epidemic: Clinical Features, **231**
Porto Rico
Bacteriological Study of, **625**
Prophylaxis
Anti-dysenteric Sera
Action of, Conditions of, **236**
Administration of, Oral and Rectal, **626, 627**
Anti-dysenteric Vaccination in Man, Experimental, **630**
Oral
Immunity developed by, Mechanism of, **630**
in Rabbit, Mechanism of, **239**
Manchurian, **633**
Vaccine for
Applications of, **238, 239**
Preparation of, Technique in, Importance of, **629**
Sequelae, Risks and Treatment of, **634**
Torikata's So-called "Koktigene," Investigation of, Especially the Dysentery-Koktigene, **235**
Toxin(s) of
Effect of, on Living Intestine of Rabbit, **237**
Resistance of, to Varying Hydrogen-Ion Concentration, **627**
Skin Reactions in Rabbits, Guinea Pigs and Goats, Induced by Intracutaneous Injection of, **237**
Toxin and Antitoxin, Combining Proportions of, **235**
Treatment, **627, 635**
Serotherapy, **627**
for Children, **626**
CILIATE = BALANTIDIASIS
Balantidial Dysentery, **246** *bis*, **247** *bis*

**Dysentery**—*cont.*
CILIATE = BALANTIDIASIS—*cont.*
Incidence
Age (Infant), **246**
Geographical
Angola, **246**
Austria, 635
France, in Algerian, 247
India, in a Hindu, **634**
Java, 246
Treatment
Emetine, **635**
Santonin, **246**
FLAGELLATE
GIARDIASIS = LAMBLIASIS
Treatment by Yatren, **246**
MIXED AND UNCLASSED, 240–7, 631–5
Ascites in relation to, 365
COLITIS, Oral Vaccination against, **631**
Diagnosis
Cytodiagnosis, **240** *bis*
Sigmoidoscope as Aid to, **242**
Dysentery and Diarrhoea in Poona: Epidemiology: Laboratory Findings, **632**
Enterocolitis, Dysenteriform, Severe, in Childhood; Argentina, **245**
Forms and Incidence in Young Porto Rican Children, **244**
Gaol: Nigeria, **243**
Historical References to, **183**
Incidence
England, 635
India, 365
Irak, Northern, **244**
Nigeria, in Gaols, **243**
Indian Remedy Against, **635**
Infantile: Near East, **633**
Prophylaxis
Anti-dysentery Serum for, How best obtained, 495
Vaccination, Oral, **490**
Titles of Unnoticed Papers, 247, 635
Treatment
*Holarrhena dysenterica*, or Kurchi Bark, **635**
Panzaron, 245
Uzara, **245**

**ENTERIC FEVERS IN THE TROPICS**
Bacteriology
*Bacillus*
*paratyphosus A*, 368
Europe's Safety from, 371
*paratyphosus* and *typhosus*, Antigens of, and of Dysentery Bacilli, **487**
TYPHOID
Diagnosis
Bacteriological, Difficulties in, **491**
Marris's Atropine Test in, **401**
Incidence
China: Yunnanfu, 368
Dutch East Indies, 400
Morocco, with Jaundice, **401**
and Malaria, Coexisting, **400**
Prophylaxis: Vaccination, Oral, **490**
Treatment by T.A.B. Vaccine, **401**
Tropical Aspect of the Question of, **400**

**Dysentery**—*cont.*
TYPHOID AND PARATYPHOID
and Dysentery, Bacteriological Diagnosis, **491**
Incidence: Colombia, 379

**Gangosa,** *see under* **YAWS AND SYPHILIS**

**Goundou**
Incidence
Belgian Congo, First Case, **10**
Liberian Hinterland, 375-
in Man and Monkey, **661**
Yaws in relation to, **10**

**GRANULOMA VENEREUM,** 14–17, 668–70
Cases of, **17** *bis*, **669, 670**
Etiology, **16, 669, 670**
Extragenital Infection with, **668**
of Face and Mouth, **15**
Incidence
Geographical
America
South, 16
U.S. 16 *bis*
Southern States, in Negroes, **15,** 669, 670
Dutch New Guinea, Southern
Among the Marindinas, **668**
Blood Studies in, **17**
France, **670**
Lagos, 15
South Africa, Cape Province, 15
Race, **15** *bis*, 16, 668, 669, 670
Oral Infection in, **670**
Treatment, 14, 15
Tartar Emetic, **16** *bis* 17
Ulcerating **14, 15, 669**
Diagnosis, **14,**

**HEAT STROKE,** 322–3, 888–9
Combined with Malaria, **561**
Considered as Thermoregulatory Incompetency, **888**
Heat, External, a Cause of Fever in Children, **322**
Heat Cramp, **889** *bis*
Heat Injuries, A, Preparatory Study for Experimental Heat-Stroke **322**
and Heat-Syncope, **323**
Notes on, **888**
Titles of Unnoticed Papers, 889
Treatment, **888**

**HELMINTHIASIS,** 446–74, 931–74
DISEASES
ANKYLOSTOMIASIS
Bibliography on, of International Health Board, **968**
Blood Changes in, and Conditions
Eosinophilia, **967**
Erythrocyte Resistance, 970

**Helminthiasis**—*cont.*
Diseases—*cont.*
Ankylostomiasis—*cont.*
Development of, Points in, **966**
Diagnosis, **964**
Incidence
Australia, Queensland, 466 *bis*
Belgian Congo, 374
British Guiana
Hookworm Survey in, **467**
Cochin China, 369
Colombia
Magdalena Coast Lands, 379
Egypt
Factors Influencing Spread, **446**
Fiji, 969
French Guiana, 970
French West Indies, **465**
Guatemala, 378
India
Prevalence and Epidemiology, **932**
Khewra Salt Mines, **969**
Kenya : Wateita Race, 373
Korea, **969**
Liberian Hinterland, 375
Porto Rico, 466
St. Croix : Rare, **970**
Tunis, Southern, **964**
U.S. Africa, **963,** 764
Parasites associated with
Ancylostoma
Carrier-percentage in New Caledonia, 935
Distribution of Species, Influences Determining, **466**
Genus of, Review of, **468**
Ova, Loss of, from Faeces, **966**
Immunization with, **971**
Infection Route of: Re-Examination of Per-os Infection Experiment, **971**
Larvae, Migration of, from Cultures, **467**
and *Necator americanus* Larvae of, Researches on, **468**
Reactions of, Studied by the Graphic Method, **938**
Viviparity in, **970**
*caninum*
Development of, in Normal and Abnormal Hosts, Dog and other, **968**
Infection with, in Dogs, Quantitative Study on, **967**
Oral and Cutaneous Infection with, of Dogs, Comparative Studies on, **467**
*duodenale*
and *Necator americanus* Infestation, Morphological changes in Blood in especially Eosinophilia, **967**
Larvae of, Researches on, **966**
Ova and Larvae of, Conditions Affecting, **466**
Ova and Mature Larvae of, Resistance of, against the Halogen Group, especially Iodine, **967**

**Helminthiasis**—*cont.*
Diseases—*cont.*
Ankylostomiasis—*cont.*
Parasites associated with—*cont.*
Ancylostoma—*cont.*
*duodenale*—*cont.*
and *Uncinaria stenocephala* Larvae of, Morphological Diagnosis of, 371
*Necator americanus*
Egg-Production of, Regularity of, **464**
and Three other spp. of Ancylostomidae, Larvae of, Mature, Morphological Differences between, **965**
*pluridentatum* of Carnivores, Description of, **468**
Personal Experiences of, **964**
Physical Efficiency in, **467**
Prophylaxis, 466, 467
Larvicides : Salt, 968, 969
Thefsapaidodon
Samoan, 970
Sanitation, 466, 467
Reinfestation after Intensive Campaign, in Unsanitated District : Porto Rico, **466**
Symptoms, **964, 965**
Treatment, **964**
in Korea, **969**
Mass [in Fiji], **969**
Various Means
Anthelmintics, Effects of, Studied by the Graphic Method, **938** *bis*
Carbon Tetrachloride, Intoxication of : Prevention and Treatment, **469**
Comparison of, **970**
Salt, **968** *bis*, 969
Tetrachlorethylene, **969**
Ascariasis
Ascaris or Ascarids of
Extracts of, Antitripsic Power of, **961**
Larvae
Invasion with, of Guinea Pigs, Blood Changes after, **959**
Per-Oral Infection with those Hatched Open Air, in Special Reference to Development Processes in Host's Bodies, **465**
Pig-Infection with, **465**
Migration of, in Man, **465**
Ova Number of, Relation of, to Number of Female Worms, **960**
Species referred to
*lumbricoides*
Action on, of Naphthalene and Derivatives, **960**
Body Fluid of, **960, 961**
Egg-Production of, and its Regularity, **464** *bis*
Eggs of, Development-rate and Viability of, under Field Conditions, **464**
Grave Symptoms due to, **961** *bis*
Studies on, **960**

**Helminthiasis**—*cont.*
Diseases—*cont.*
Ascariasis—*cont.*
Ascaris or Ascarids of—*cont.*
Species referred to—*cont.*
*Suum* and Human *Ascaris*, Ova of, Development of, **958, 959**
Incidence: Wateita People, 373
Simulating Bright's Disease, **961**
Surgical Complications, **961**
Bilharziasis or Schistosomiasis
Cases with Spineless Eggs, from Upper Welle, **945**
of Conjunctiva, **947**
Diagnosis
Intradermal Reaction in, **458**
Prophylaxis and Cure, Need for More Care in, **942**
Radioscopic, Book on, Reviewed, **168**
Findings in 100 Routine Autopsies: Porto Rico, **459**
Hepatic Stage in Man, Question of, **944**
Incidence
Geographical
Australia, 944
Belgian Congo, 947
Upper Welle Region with Spineless Eggs, **945**
China: Soochow, 949
Corsica, Risk of, 946
Egypt, **456,** 457, 943, 947
Dakhla Oasis, 456
Factors Influencing Spread, **446**
Gabon, **946**
India: Native Case with Unusual Features, **945**
Liberia, 947
Hinterland, 375
Natal, 942, 943
Porto Rico, **459** *bis*
Studies on, **948** *quat.*
Portugal, 456
Rhodesia: Umtali, 943
Somaliland (presumed), 944
South Africa, 943, 945
in Bantus, 376
Tanganyika Territory, 457 *bis*
Transvaal, 943
U.S.A., 947
Occupational
Australian Troops, **944**
Fishermen, **943**
Intestinal Infection with *S. haematobium*: Gabon, **946**
Intradermal Reaction in, **458**
Notes on, **456, 457**
Pathology, **457**
Problem of, in Egypt, **456**
Prophylaxis
Camp, for Treatment of School Children, 943
Control Measures, 943 *quat.*
Physopsis Poisoning, **943** *bis*
Successful, in Eradication in Endemic Area, **456**
Rectal
in Madagascar Uplands, **949** *bis*
Splenomegaly and, **944**

**Helminthiasis**—*cont.*
Diseases—*cont.*
Bilharziasis or Schistosomiasis—*cont.*
Schistosoma associated with
African Carriers of, 946 *bis*
*bovis* Infection in Man, **950**
*haematobium*
Attempts to Infest *Bullinus brocchii* with: Tunis, **947**
Development, of in *Bullinus contortus* from Corsica, **945**
Endemic Area of, Cyprus, *Bullinus Contortus* in, **948**
Experimental Infection with, of a Corsican Mollusc, **458**
Is Man the Sole Reservoir of? **944**
*japonicum*
Cercaria of, **950**
Infection: Treatment, **458**
Oral, **950**
Mollusc Host of, Larva Attacking, **935**
Sex Studies on, **949**
*mansoni*
Distribution of, in Porto Rico: Carrier of, **459**
Schistosome Dermatitis: Michigan, **946**
Treatment
Antimony Compounds. **947** *bis*
Accidents &c. During, **947**
Antimosan, **459**
Antimosan, Mercurochrome, and Tartar Emetic, 458
Stibosan, **459**
Vesical
Double Infection, **457** *bis*, **945**
incidence: Tanganyika, 457 *bis*
Treatment, **946**
Calabar Swellings, 473
Clinical Symptoms, **449**
Clonorchiasis
*Clonorchis sinensis* of,
Distribution of, in Japan of, **942**
Splenomegaly due to, **453**
Second Intermediate Host: Japan **455**
Experimental, Blood Features of, **455**
Incidence
China: Canton District, **941**
Dutch East Indies, 454 *bis*
Japan, **941, 942**
with Reference to the Pacific Slope, U.S.A., **454**
Treatment with Gentian Violet-Grübler **454**
Cysticercosis
Bovine
and Human Taeniasis: Syria, **955**
Madagascar, **958**
*Cysticercus*(*i*) of,
*cellulosae*
Encysted, **958**
Somatic Infection with, **463**
*fasciolaris*, Digestive Experiments with **958**
Subconjunctival: Brazil, **957**
Dicrocoeliasis
in Animals: Tashkent, **455**
in Man: Russian Asia, 455, **455**

**Helminthiasis**—*cont.*
Diseases—*cont.*
*Diphyllobothrium latum* Infestation
Early Development : Minnesota, **460**
Fish Hosts of, 950, **951** *ter*
Incidence in Canada and U.S.A., **460**, **950**, **951** *quat*
Distomiasis
False in Human Liver, **456**
*Fasciola* associated with
*gigantica*, Infestation by, of Man, **941**
*hepatica*
Life-History of, in Japan, **940**
Redia of, Locomotion of, **940**
Incidence
Algeria, **940**
France, **940**
Japan, **940**
Echinococcosis = Hydatid Disease
Alveolar, of Liver, Sixth French Case, **957**
Diagnostic Tests in, **953**
Biological, **953**
Precipitation, **954**
Radiological, of Intrahepatic Cysts, **954**
*Echinococcus*(*i*) of
Brood Capsules of, Cuticulization of, **462**
Colossal, **461**
Intrahepatic, Radiological Diagnosis of, **954**
of Orbit, in a Chinese, **482**
Ortho-scolex of, Development of, **955**
Scolices of
Cultivation of, **956**
Toxicity for, of Certain Drugs, *in vitro* Tests of, **954**
Vesicular Development of, *in vitro*, **463**
Experimental of Rabbits Tibia, **956**
Hepatic, in an Indian, **463**
Hydatid Anaphylaxis, **955** *bis*
Hydalid Cyst, Inoculation of, into Rabbit's Ear, **965**
Hydatid Sand, Sterilized, Attempted Anti-Hydatid Vaccination with, **956**
Incidence
Argentina, **957**
Iceland, **461**
India, 365
New Zealand : Otago, 461
South Africa, in Bantus, 376
Syria, **955**
Tunis, **953**
Intrathoracic and Subdiaphragmatic, and its Complications, X-Ray Examination of, **462**
of Lung and Probably of Heart, **957**
Medical Aspect of, **462**
Prophylaxis
Attempted Vaccination with Hydatid Sand, **956**
*Fasciola hepatica* infection *see* Distomiasis, *supra*

**Helminthiasis**—*cont.*
Diseases—*cont.*
Filariasis
Elephantiasis, Filarial
Early, Treated by Protein Shock, **997**
Incidence
British Guiania, **383**
Morocco (probably), **385**
Tanganyika Territory, 384
of Male External Genitalia, **384**
Surgical Treatment, **383**
Filaria and Microfilaria associated with
Embryos of, Cultivation of, *in vitro*, Attempted, **973**
Skin Infections by : Cameroons, **472**
*Agamofilaria streptocerca*, Identity of, **472**
*bancrofti*, Infection with, Porto Rico, **472**
*immitis*, Experimental Infection with, of Dog, and Studies on its Toxic Substance, **473**
*malayi*, n.sp., of Man, **471**
*perstans*
Development of, in *Culicoides austeni*, **473**
Heavy Infection with ; Symptoms, **972**
Incidence
Argentina, **971**
Belgian Congo, 374
Cameroons, **472**
Dutch East Indies, **470** *quat*
India, 364, 365, **971**
Porto Rico, 472
Zanzibar, **971**
Transmission Experiments : Argentina, **971**
Forms Present, in and among
Liberian Hinterland, 375
Wateita People, 373
Guinea-Worm Infection = Dracontiasis or Dracunculosis
Guinea-Worm of
Radiography of, after Injection of Lipiodol, **972**
Incidence
India, 364, 365
Ivory Coast, **373**
Helminthic Fever, **939**
*Hepaticola* Infestation of Chimpanzee, **963**
*Heterophyes heterophyes* Infection in Man, Japan, First Intermediate Host of, Determination of, **942**
Human Forms Diagnosis and Treatment of, Recent Advances in, **937**
*Hymeolepsis* spp., Infestation by.
*Hymenolepis* of
*diminuta* from Baby : Japan, **952** *bis*
*nana*
Evolution of, **952**
Infection with : Rosario, **461**
n-sp., from Monkey, **952**

**Helminthiasis**—*cont.*
Diseases—*cont.*
*Hymenolepis* Infestation—*cont.*
Methods by which Contracted, **446**
Onchocerciasis
Incidence
Guatemala, **972**
Mexico, **474, 972**
Queensland, **474**
*Onchocerca* of
*gibsoni*, Larvae of, in Skin of Cattle, **474**
*volvulus*, New Site for, **473**
Oxyuriasis
*Oxyuris vermicularis* of
Frequent in Brazilian Children, **963**
Migration of, in Man, **465**
Rôle of, in Etiology of Appendicitis, **469**
Paragonimiasis
Incidence
Formosa, in Aborigines, **941**
Melanesia, Northern, **941**
*Paragonimus westermani* of
Eggs of, Nodules caused by at Bottom of Scrotal Hernia-Sac, **453**
Relation between and Ferments, **453**
Prophylaxis, **446**
Taeniasis
Human, Bovine Cysticercosis and : Syria, **955**
Skin-Reaction in, **463**
Somatic, **957** *bis*
Thelaziasis of Eyelid, Pekin, **482**
Treatment, **449**
Various Methods
Anthelmintics, Paradichlorobenzene as, **450**
Intraintestinal Thermal, **450**
Trichiniasis
Experimental
Intradermal Reaction in, **963**
Precipitin Test in, **470**
Trichuriasis
*Trichuris* of
Ora of, Number of, Relation of to Number of Female Worms, **963**
*trichiura* Eggs of, Development Rate, Regularity of Production and Viability of, **464** *bis*
Helminth Toxins, Influence of, on Development of Tuberculosis, **939**
Night-Soil Disposal, Japan : Bacteriological and Parasitological Study of, **938**
Parasites, *see also under the Various Diseases, supra*
Eggs of
Attached to Green Vegetables, Examination of, **939**
and Cysts of, Concentration (Rapid) Method for Detection of, **447**

**Helminthiasis**—*cont.*
Parasites—*cont.*
Eggs of—*cont.*
in Faeces
Detection of, by
Enrichment Method, **936**
Single Stool and Series Exam : Comparison of, **936**
in Nasal Mucus of Man, **937**
Infestation by, Diagnosis of, Intradermal Testing in with Parasitic Extracts, **936, 937**
Intramuscular, Encysted, **958**
of Man, Intermediate Fish Hosts of, **935**
Molluscs of Importance in Human and Veterinary Medicine, **935**
Species found in
Armenia 449
Banyankole Race, and Amount of Illness due to, **447**
Belgian Congolese Natives, 372
Children and School-children
Argentina, **450**
Askabad, **449**
Panama City, **450**
Stanleyville, 372
China : Tsinan, **449**
East Africa in Coast Natives, **448**
in Man in General ; Emergency Treatment, **451**
French Equatorial Africa, in Railway Labourers, **931**
India
British, 932
Incidence, as seen at Carmichael Hospital, Calcutta, **448**
Portuguese, **448**
Kenya Highlands, in Natives, **932**
Malagasies, **448**
Man, Mammalian Hosts of, **447**
Moscow, in Certain Population Groups, **934**
New Caledonia, **935**
Nigeria, in Jail Prisoners, **931**
Philippine Islands, in Stools of 500 Scholars ,**933**
Roumania, in Man, **934** *bis*
Sebastopol, **934**
Spinning Factory Girls, Nishinari, Osaka, **449**
Tunis, in Adults, **932**
Species referred to by Names
*Bertiella* Genus (Cestode), Species of, in Man and Chimpanzee : Cuba, **953**
*Bothriocephalus* spp., Larvae of, **460**
Cestodes
of Indo-China, **460**
Reactions of, Studied by the Graphic Method, **464**
*Dipylidium* Genus
Four New Species, **952**
Notes on, **460**
Earth Worms, Action on, of Ol. Chenopodium, **451**
*Echinostoma macrorchis* in Man : Japan, **942**
*Enterobius vermicularis, see Oxyuris vermicularis, under Oxyuriasis, supra*

**Helminthiasis**—*cont.*
PARASITES—*cont.*
Species referred to by Names—*cont.*
*Gigantorhyncus moniliformis, Periplaneta americana* an Intermediate Host of, **973**
Gordiids, Two, and a Mermithid, said to have been Parasitic in Man, **973**
Liver Fluke
Control of, **452**
Development History of, **453**
Intermediate Hosts of; Japan, **453**
*Loa Loa*, and Calabar Swellings, 473
Metacercariae: Collecting Method, **452**
*Rhabditis*, n sp., in Ainos, Hokkaido, **470**
*Sparganum mansoni* Route of [Experimental] Invasion by, of Host's Body, **958**
*Strongyloides stercoralis*
Auto-Infection with, **962**
Development, External of, Factors Influencing, **962**
Transmission to Dogs and Cats: Susceptibility, Resistance and Acquired Immunity to, **962**
Trematodes
of Indo-China, **460**
of Man and the Primates, List of, **451**
n-sp., of Dog: Tokyo, **459**
Parasitropism of Ol. Chenop., **451** *bis*
and the Thyroid Gland, **451**
Titles of Unnoticed Papers, 474, 973-4
Treatment by Anthelmintics, Studied by the Graphic Method, **938** *bis*
Verminous Anaphylaxis, **939**
Transmitted from Man to Guinea-pig, **940**

**HISTORICAL**, 171–86, 580–2
*Acarus scabiei*: Study of, **184**
Black Death, *see also* Plague, *infra*
Defense Reactions During (1348–9), **178**
Correspondence, **580**
Dysentery, **183**
Elephantiasis or Lepra Arabum, Niesius's Inaugural Debate on, **179**
Leprosy at Antwerp, Early 18th Century, **179**
Liver Abscess, Tropical, **174**
Malaria, The, of the First Napoleon, **174**
Plague, Bacillus of, Discovery of, **178**
and the Birth of Hygiene in Bordeaux, **176**
at Utrecht, **176**
Writings on, of Abi Ga'far Ahmed, **177**
Portuguese Doctors at Indian Courts, **171**
Portuguese Medicine in India, **171**
Typhus Fever, Old-time, in Britain, **180**
Yaws, Reflections on, **175**
Yellow Fever, Conquest of, the Romantic Side of, **172, 580**

**Influenza**, *see under* **MISCELLANEOUS**

**JAPANESE RIVER FEVER**, 52–3, 535–6
Etiology, 52 *bis*
Incidence
Dutch East Indies: Sumatra, N. E., **525**
Malaya, **52**
Selangor, **525**

**JAUNDICE, INFECTIOUS** = Weil's Disease, Spirochaetosis icterohaemorrhagica and other Leptospiroses, 99–110, 602–13
Aortic Aneurism in, **610**
Azotemia and Temperature Fall in, **101**
Chemotherapy in, **609**
Epidemiology, **104**
Incidence in
Animals
Chimpanzees, **611**
Transmissible to Man, **102** *bis*
Dogs, **103, 611**
Rats
Bahia, **612**
Baltimore, **102**
Turin, **110**
Weltevreden, **611**
Man
Andaman Islands, **608** *bis*
Ayrshire, **99**
Federated Malay States, Recent Work on, **606**
Italy, **110**
Japan, **610**
Chikuho, in Coal Mines, **610**
Morocco, **100**
Sumatra; **605**
Mild Type, **604**
U.S.A., **99, 110**
Virginia, **610**
Leptospira = Spirochaetes, Associated with
Culture Media of, Study on, **106**
Differentiation of, Adhesion Phenomena as Aid to, **106, 107**
Question of, Present State of, **605**
Species Causing Jaundice, Nephritis and Uraemia in Dogs, **611**
from Tap Water, Isolation of, **109** *bis*
of Weil Type, Serological Researches on, **107**
Species referred to, by Name
*icterogenes* = *icterohaemorrhagica*
Biology of, in the Tropics, **609**
Foetal Infection by, and by the Spirochaete of Akiyami-Fever, **610** *bis*
Identity of All Animal and Human Pathogenic Spirochaetes of the Type of, and the Allied Water Spirochaetes, **602**
Study of, **99**
*icteroides*
and *icterohaemorrhagiae*, Fate of, in the Mosquito, **104**
Differentiation of, **608**
Relation of, to *L. icterohaemorrhagiae*, **105** *bis*
Staining of, by Carbol Fuchsin, **612**
Comment on, and Another Method for, **613**

**Jaundice, Infectious**—*cont.*
Leptospira = Spirochaetes—*cont.*
Species referred to by Name—*cont.*
*pseudoicterogenes*, **108**
Mild, Diagnosis, Symptoms, Epidemiology, and Treatment, **604**
Other Leptospiroses
Epidemic: French West Africa, **100**
Experimental, Liver in, Chemical Change in, **105**
Leptospiral Infections, Microscopical Diagnosis of, Early, **110**
Mud Fever, Etiology of, **110**
Pathogeny of, **101**
Prophylaxis, Bismuth in, **101**
Treatment, *see also* Chemotherapy, *supra*
Bismuth, **101** *bis*
of Mild Sumatran Type, **604**
and Yellow Fever, Relation between, **105**

**Juxta-Articular Nodules**, *see under* **YAWS AND SYPHILIS**

**KALA AZAR** (Leishmaniases, All Forms), 60–78, 419–29, 856–62
Books on, Reviewed, 756, 928
Canine
Dermal; Tashkent, **76**
Keratitis and Conjunctivitis in, Diagnostic Importance of, **427**
and Oriental Sore, Experiments with, **427**
Cases of, **60**
Cure Rate in, **62**
Dermal or Cutaneous = Aleppo Button, Biskra Button, Clou de Mila, Delhi Boil, Oriental Sore, Tropical Sore
Canine; Tashkent, **76**
and Canine, Experiments with, **427**
Human
Association of, with Kala Azar, **422, 423**
Dermal Leishmanoid; Rare Case, **860**
Espundia: Peruvian form, **72**
Experimental, Action in, of Leishmania Vaccine, **74**
Incidence
Algeria, **73** *bis*
Argentina, **61**
Baghdad, **73, 426**
Constantinople, **861**
Crete, 73
Greece, **73**
India, 70, 860
Lahore, **861**
Peru, **72**
South America, 860 *bis*
Spain
Tarragona District, **428**
Tortosa District, **77**
Syria: Diabekir, 77
U.S.A., in a Turk, **77**
with Lymphangitis of Fore Arm, **862**
Post-Kala-Azar, **70**
with Positive Flagellate Culture from Peripheral Blood, **71**
Probable Case in an Indian, **428**
Produced in Man, by Flagellate Cultures of *L. tropica* **76**
Reports of Cases, **861** *bis*
Transmission by Phlebotomi, **860** *bis*

**Kala Azar**—*cont.*
Dermal or Cutaneous—*cont.*
Human—*cont.*
Treatment by
Diathermy, **74**
Lactic Acid, **428**
Various Methods Analysis of 337 Cases, **74**
and Dermal Leishmaniasis, Concurrent Infection with, **422 423**
Diagnosis
Antimony Tests in, **420, 421 857** *bis*
Iso-Electric Points of Blood Sera and, **857**
Microscopical, 419, **419**
Urea-Stibamine Test in, **421** *bis*
Experimental
Diagnosis, Intracutaneous Reaction for, **858**
of Hamster, Blood Picture in, **425**
Formol-Gel Test in, and in Syphilis (*q.v.*, *under* **YAWS AND SYPHILIS**), **69**
Globulins in, and in Syphilis, **69**
Incidence
Age: New-born Child, **858**
Geographical
Argentina, **61,** 428
Asia, Central, 422, 423
Greece, **426**
at High Altitudes, **421**
India, 61, 364, 419 *sqq.*, **426** *bis*, 858, **860**
Bombay
Patna: Survey, 1923, **856**
Simla Hills, **60**
Kenya, **857**
Sicily, 368
Spain, **77**
Distribution of, **426**
Infantile Case, **426**
Syria, **862**
Weihaiwei, 60
Yugo-Slavia, 77
Incubation Period, **61**
Leishmania (Herpetomonas) associated with all forms
Cultivation of, on Solid Media: Their Differential Diagnosis, **859**
Cultures of, Behaviour of in *P. papatasii*, **65**
Finding of, in Peripheral Blood by Microscopical Diagnosis, 419, **419**
in Venous Blood, Finding of, Simple Method for, **858**
*donovani*
Flagellate form of, Infectivity of, **425**
Peripheral Lesions Produced by, and by Allied Leishmaniae, **424**
in Skin and Subcutaneous Tissues of Patients, Demonstration of **71**
Staining of, in the Tissues, Silver Method of, **78**
*infantum*, in Chinese Hamsters, **859**
*tropica*
Discovery of, History of, **429**
Exit of, through Proboscis of *Phleb. papatasii*, **428**

**Kala Azar**—*cont.*
Leishmania—*cont.*
*tropica*—*cont.*
Flagellate Cultures of, Dermal Form of the Disease Produced by, **76**
Infection with, Natural and Experimental, of *P. papatasii*, **75**
Microscopic Experiments on, **429**
Nuclear Division in, **429, 862**
Transmission of, from Artificially Infected Sandflies to Man, **75**
MEDITERRANEAN OR INFANTILE
Diagnosis, Clinical, **60, 77**
Incidence
Italy, 69
Sicily : **60,** 368
Spain, 60, **426**
Infantile Splenomegaly Assumed to be, Treatment by Stibenyl and Stibosan, **77**
Serodiagnostic Researches in, **69**
Provocative Action in, of Organic Antimony Compounds, **423**
Researches on
in British India, **426**
Recent, Outside of China, **419**
Reticulo-Endothelial System in, **70** *bis*
Serum Tests for, New, **67, 68** *bis*
Titles of Unnoticed Papers, 78, 429
Transmission
*L. donovani* and, **71**
by *Phleb. argentipes*, Method of Feeding of, with Relation to its Bearing on, **422**
Transmission Experiments in Chinese Sandflies, **64** *bis*
Treatment
Antimony and Derivatives, **63** *ter*
Cardiac Arrhythmia after, **63**
Organic Compounds of, Provocative Action of, **423**
Stibosan and Antimosan, **423**
Urea-Stibamine, Toxicity of, Instance of, **426**
Urea-Stibol, **858**
von Heyden 693, **62**

**LABORATORY REPORTS,** 294–304, 904–9
Algeria : Pasteur Institute (1926) 296
Dutch East Indies
Bandoeng Govt. Vaccine and Pasteur Inst. (1926), 301
Java
Weltevreden : Military Med. Lab. (1926), 302
Medan-Deli Pathol. Lab. (1927), 908
Federated Malay States. Med. Research Inst. (1926), 300
India
Bombay
Haffkine Inst. (1925), 297, (1926), 298
Burma
Rangoon
Harcourt Butler Inst. of, Pub. Health (1926), 905
Madras
King Inst. of Med., Guindy (1924–5), 299, (1926–7), 904
Kenya, Col. and Protect. Med. Research Lab. (1926), 905

**Laboratory Reports**—*cont.*
Nigeria, Med. Research Inst. (1926), 294
Lagos :
African Hosp. Lab. (1926), 295, **907**
Palestine : Lab. Sec. Dept., of Health (1926),
Roy. Soc. Trop. Med. & Hygiene, Transactions of, Lab. Meetings (1927), 302, (1928), 908
South African Inst. for Med. Research (1926) 906
Tanganyika Territory
Dar-es-Salaam, Bacteriol. Lab. (1925), 294
Uganda
Bact. Lab. (1926), 295
Lab. Services Division Med: Dept. (1927), 905

**LEPROSY,** 200–11, 636–54, 975–89
with Abortive Course, **203**
Anaesthetic, Recoveries from, after Protein Shock Treatment, **986**
Analgesic, Oil-Soluble, for Rendering Painless, Intramuscular Injections of Chaulmoogra Oil, **647**
Bacteriology
*B. leprae*
Chemistry of, **204**
Culture of and Preparation of Leprine, **981**
Pure, Spontaneous Haematomata in Leper, with, **641**
Inoculation with, Reactions of Leucocytes of Rabbits after, **651**
Microbiology of, **652**
in Negative Lepers, **653**
in Placenta and Umbilical Cord, **639**
Search for, in Leprotic Macules, **639**
Staining of, **981**
Lepra Cells and Reticulo-Endothelium, Relations between, **977**
Large, Multinucleated, in, Presence of and Significance of, **982**
Blood in
Blood Serum in, Calcium in, **979** *bis*
Chemistry of, **979**
Cholesterol Content of, **642, 643**
Red Cell Sedimentation in, **209, 978, 979**
Iodide-Sedimentation Test, **982**
Leprous, Inoculation with, of Rabbit's Testicle, Changes after, **983**
Study of, **643**
Book on, Reviewed, **1003**
Clinical Cases, **641** *oct.*
Contagion in, **200**
and Transmission, **640,** 642
Curable Forms, Mild, Localized, **641**
Description of, for Health Officers, **638**
Diagnosis, **208**
Iodine-Sedimentation in, **982**
in Prophylaxis, Importance of, **204**
Serological, **978**
Disease Resembling : West Africa, **978**
or Elephantiasis, Niesius's Inaugural Debate on, **179**
Eye Affections in, **482**
Examination of Lepers' Ears, Noses, and Throats, Results of, **988**

**Leprosy**—*cont.*
Haematomata, Spontaneous, in Leper, with Pure Culture of Lepra Bacilli, **641**
Herpes Zoster During, and During Treatment, **642, 647**
Incidence
Age : Children, **645**
Familial, **640, 641**
Geographical
Africa, **638**
Algeria, in Arab, **641**
Argentina, **201, 202, 652**
Belgium, Antwerp, early 18th century, **179**
Brazil
Epidemiology and Prophylaxis, **200, 201, 204**
S. Paulo, 643
China : Yunnanfu, 368
Dutch East Indies, Association for Combating, **202**
East, Middle, and Near, **638**
Ecuador ; Quito, 200
England, **211**
Europe, **638**
Fiji, **975**
France, **976** *quat*
French-Indo-China
Choquan Hospital, Treatment by, B.C.G., **987**
French West Africa : Coastal, 373
Gambia Protectorate, **202**
Gold Coast, Ho District, Report on (1926—7) **976**
Guiana
British, **636** *ter*
French, **200** *bis*, 976
India
British, 642, 651
Distribution, 364, 365, 366
Calcutta, 204
French, 206
Pondicherry, 651
Portuguese, **209**
Italy, 977
Trieste, **977**
Liberian Hinterland, 375
Madagascar, 650
Mexico, **641**
Morocco, **637**
Nigeria, 647, 648, **978**
Panama : Porto Seco, **646**
Philippine Islands, 206 *bis* **638,** 639, **645, 653,** 983, 984, 985, 986
Porto Rico, 650, **975**
Portugal, 976
Uganda : Kigezi District, **646**
U.S.A., 203, **975**
Carville National Leper Home, Report on (1926-7), **637**
Southern States, 975
West Africa, 978 *bis*
Is It Hereditary as well as Contagious ? **638**
Kala Azar as Affecting, **204**
with Kyphoscoliosis, **203**
Lepra Reaction, Plasma in, Carbon Dioxide Combining Capacity of, **984**
**Leprosy**—*cont.*
Leproma, Cutaneous, Histological Study of a, **981**
Leprous Changes in the Vessels, **640**
Makogai Leper Asylum, Fiji Report (1927) **975**
Meiostagmin Reaction, Two Forms of, **988**
Mental Aspect of, **203**
Nodular = Tuberculoid, **203**
Acute, in England ; Cure by Inoculation, 211
in France, **976**
Larynx-Involvement in, **977**
Norwegian Leprosy Laws, Application of, to Dutch Indies, **639**
Problem of, **201** *bis*, **978**
Prophylaxis
Bearing on, of Recent Advances in Treatment, **646**
Diagnosis in, Importance of, **204**
Argentinian, **652**
Brazilian, **200, 201**
British Indian, **652**
Dutch East Indian, **202**
Pseudo-
Guatemala, **703**
Lagos, **978**
Rat
Calcutta, Experiments in, **653**
Cutaneous : Pathology of, **981**
Tumour-like Growths in, caused by *B. murium* Inoculation, **210**
Recovery after Protein Shock Treatment, **983**
Report on, to the League of Nations, **636**
Serological Reactions (Wassermann, Meinicke and Boletho), **650** *bis*, **651** *ter*, **652**
Studies on, **980** *sept.*
Symptoms, **208**
Sensory, Alone, **641**
Unusual, **641**
Syphilis in, Serological Diagnosis of, **982**
and Hypernephromatosis Complicating, **641**
Titles of Unnoticed Papers, 211, 654, 989
Transmission, 200
and Contagion, **640,** 642
Treatment, **208**
in Culion Leper Colony, Progress of, to March 1927, **206** Further references, **638, 639, 645, 653**
External, 988
Results in Children at Culion Leper Colony, **983**
in the Straits Settlements, **208**
Various Methods
Alepol, 205 & n., 209, 646
B. C. G., **987** *bis*
Benzocaine-Chaulmoogra Oil, **647**
$CO_2$ Snow and Solganal, **207, 985**
Chaulmoogra Oil, 644 *et alibi*
Derivatives of, **644, 646**
Results, Evaluation, **984**
Ephedrine, **649**
Gold Preparations, **206, 207, 649, 704, 986**

**Leprosy**—*cont.*
Treatment—*cont.*
Various Methods—*cont.*
Hydnocarpates and Iodides, Curative Action of, **647**
Hydnocarpus Wightiana Oil, **206**
Inoculation, **211**
Iodide-Antimony, **207**
Iod. Pot. (Muir's Method), 646, 647
Javanin, **649**
Krysolgan, **986**
Methylic Antigen, **650, 987** *bis*
Milk Injections, 648
Mixed, **647**
Moogrol, **646**
Protein Shock, Apparent Recoveries after, **986**
Recent, Modern, New and other, **643, 644** *ter*, **645, 646** *quint*, **648** *bis*, **649** *ter*, **650** *bis*, **652, 985**
Sod. Bicarb., &c., Results, **984**
Sod. Hydnocarpate: Suggested Improvements in Administration, **205**
Sod. Hydnocarpate and Bruschettini Vaccine: Results of Trials of, **983**
Ultra-violet Rays, **650,** as Adjuvant, **985**
Undiagnosed, **641**

**MALARIA,** 115-58, 550-79
Active and Latent Phases of, Causesof, **560**
Acute, and Chronic, Respiratory Insufficiency in, **577**
Affecting Central Nervous System, **561**
*Anopheles* in relation to
Books on, Reviewed, **80** *bis*
Group Infected with *P. vivax*, History of, **573** *bis*
Species Known or Suspect as Carriers in Misiones, Argentina, **125**
of Southern U.S.A., **124**
and Anopheles, Annual Figures of, about Amsterdam, Fluctuations in, Comparison of, **555**
Anophelism and, **555**
Appendicitis, Malarial ? **131**
Avian
Effects on, of Plasmochin, **137**
Studies in, **577**
Bilirubinaemia in, **145**
Blood for Exam., Conveyance of, **998**
Blood Conditions in
Anaemia
Pathogeny of, **563**
Glycaemia, **147**
Leucocytes and Parasites in Blood of Patients, Relation between Quinine and, **559**
Red Cells
Morphological Changes in, in the Different Forms of the Disease, **575**
Stippling of, **575**
Books on, Reviewed, 326-9 583, 753
Brain in
Cerebellar Symptoms of Malarial Origin, **157**
Morbid Anatomy of, **146**

**Malaria**—*cont.*
Cerebral, **561**
or Meningitis ? **561**
Chronic
Diagnosis, **579**
Urobilinogen in, **146**
Latent, Adrenalin Reaction in, **146**
Clinical Mimicry in, **131**
Coexistent with Typhoid, **400**
Coma, Malarial, in Pregnant Woman, **130**
Congenital, **129** *bis*
in Greece, 562
Diagnosis
Laboratory, **576**
by Spleen Palpation, Deep Inspiration, and, **558**
Digestive Disorders in, **130**
Ear-affection in, **562**
Epidemics, Forecasting of, **126**
Eradication of, Biological Difficulties in, **558**
Gastric and Intestinal Disturbances in, **561**
Heat-Stroke Combined with, **561**
Hepatomegaly in, **132**
Immunity in and from
Clover in [possible] relation to, 557
Why does it exist in Cultivated Egypt ? **557**
Why is there no Complete ? **557**
Immunization Against, Indirect, Does it Exist ? **558**
Incidence
Geographical
Algeria
Epidemiological and Prophylactic Studies of, (1925–6), **552**
Andaman Islands
Enlarged Spleen in, **127**
Argentina, **117, 156**
Entomological Investigations into, **125** *bis*
Barbados, **550** *ter*
Bulgaria, **121**
Ceylon: Malaria Control in, **570**
China
Near Pekin, **578**
Yunnanfu, 368
Colombia: Magdalena Coastlands, 379
Congo
Belgian, **118,** 372, 373
French: Brazzaville, **118**
Corsica
*Gambusia affinis* as Larvicide, **914**
Dalmatia: Antimalaria Work in, **571**
Dar-es-Salaam, **118**
Dutch East Indies
Java: Tegal, **554**
Solo; Epidemic, Investigation of, **126**
Dutch Guiana
Results of Three Years' Malaria Control in, **570**
East Africa
Hints on Treatment in Out-of-the-Way Places, **577**
Federated Malay States
Reports of Malaria Advisory Board, for 1926, **119**
French West Africa, 373
German Republic of the Volga, **122**

**Malaria**—*cont.*
Incidence—*cont.*
Geographical—*cont.*
Grand Comoro
Epidemic, 1925, **550**
Greece, 562
Historical Note on, **556**
Guatemala, Severe, 378
Haiti, **125**
Holland
Amsterdam Region, **555**
North
Report on, of Malaria Commission (1926), **120**
Honduras, 300
India
Indigenous Cases at High Altitudes, **132**
Railway Construction as Affected by, **553**
Bengal
Birnagar; Control in 1927, **571**
Jalpaiguri Duars, Report of Malaria Survey of, **552**
Burma: Maymyo, **553**
Indo-China = Cochin China, 369
Annam
Kontum District, Malarial Index of Natives in, **553**
on a Plantation, **120**
Saigon, **554**
Tonkin: Hagiang, **554**
Italy, **122** *bis*, **123** *ter*
Sardinia: Sassari, **122**
Sicily, 368
Venetia, Lower Ongaro Zone, **573**
Liberia
Hinterland of, 375
Monrovia, 571
Madagascar, 914
Mexico, 378
Reduction of, 377
New Zealand: Indigenous, **129**
Norway, 998
Philippines
Olongapo Naval Station, **120**
Reunion, **551** *bis*
Rhine Valley, Is it Still Indigenous? **578**
Russia
Epidemic in the 1920's, 899
Kazan, 1920 Epidemic, **156**
Winter-time Transmission of, 128
South Africa
Preventive Measures for Settlers and Farmers, **572**
Transcaspia, 914
U.S.A.
*Anopheles* Transmitting, **124**
Prevalence of, Spleen Rate as Measure of, **128**
Illinois, Southern, **124**
Mississippi, 556
Venezuela, 377
Yakutsk Republic, **139**
Zanzibar Protectorate, **551**
on Warship off Lagos, **119**
Inoculation Malaria
Blood Grouping and, **153** *bis*
Immunity Studies in, **152**

**Malaria**—*cont.*
Inoculation Malaria—*cont.*
in Treatment of
G.P.I., **150, 151** *bis*
Blood Picture in, **576**
Cure by, **578**
Liver Functions as affected, **152**
Treatment by Stovarsolate of Quinine, **144**
Parasyphilis, as Furthering of Malaria Research, **579**
Quinine Treatment of, Acute Haemolysis after, **893**
Latent
Activation and Reactivation of Endocrine, **157**
by Gonacrine Injections, **147**
Diagnosis: Adrenalin, **558**
Malaria Index, Brazzaville, **118**
Malaria Pigment, Chemical Nature of, **575**
Malarial Haemoglobinuria, **892**
Haemolytic Process in, **899**
Pathogeny of, **899, 900**
of Napoleon I, **174**
Natural, not Preventive of G.P.I., **578**
and the Nervous System, **131** *bis*
Observations on, **556**
*Plasmodium* (*a*) associated with
Crescents, Male and Female, Relative Number of, in Peripheral Blood, **150**
Cultivation of, **150**
Gamete-Destruction by Plasmochin, **566**
in Patients' Blood, Relation between Quinine, Leucocytes, and, **559**
*falciparum*, Non-Development of, in *Anopheles maculipennis* in Winter: Results for Northern Europe, **556**
*ovale*, Infection by, Nigeria, **149**
*vivax* and *P. falciparum*, Monthly Variations of, **157**
Prophylaxis
Antimalaria and Anti-Anopheles Measures
Anopheline-Poisoning, **920** *bis*
Book on, Reviewed, **79**
Cost of, Methods of Reducing, **912**
Larvicides
Borax as, **918**
Comparative Efficiency of, **915**
Fish, **914** *bis*, **915** *bis*
Kerosene, **919** *bis*
Liquid Paraffin, **919** *bis*
Paris Green, **918, 919** *bis*
New Diluent for, **918**
Petrol, for Wells, &c., **917**
Stoxal, Tests of, **917**
Mosquito Control Methods **912** *ter.*, **913** *ter*
Netting, 368
Practised in
Argentina, **125, 156**
Azerbaijan, by Desiccation of Rice Fields, **572**
Ceylon, **570**
Dalmatia, **571**
Dutch Guiana, **570**
Elizabethville, **118**
Europe, **115** *bis*

**Malaria**—*cont.*
Prophylaxis—*cont.*
Antimalaria Measures—*cont.*
Practiced in—*cont.*
Greece, 154
India : Birnagar, **571**
Italy, **122** *bis*, **123** *ter.*, **154, 155, 156** *bis*, **572, 573**
Liberia : Monrovia, **571**
Malaya and Assam, **119**
Panama Region, **569** *bis*
Reunion, **551** *bis*
Prevention and Control Measures of Outstanding Importance in **153**
Reduction, Unprecedented, due to, in Panama City Zone, Towns, and Colon, **569**
Quinine, 368, 369
Panama Canal Zone, **569**
South African First Measures for Farmers and Settlers, **572**
Thatched Buildings, a Problem in, **914**
Zooprophylaxis, **572**
Grassi's Opinion *cited*, **578**
Quartan
Association of, with Nephritis, **132**
Quinine, *see also under* Prophylaxis, *supra*, and Treatment, *infra*
How to Distinguish Albumen from, in Mayers' Test, **132**
Quinine Content of Urine, Determination of, **144, 569**
Research
Inoculation Treatment of Parasyphilis as Furthering, **579**
New Procedure for, **573**
Retinal Changes in, **482, 562**
Rickets as Influenced by, **560**
Serological Tests in, **148** *bis*, **149**
Spleen Rupture in, **130** *bis*
Subtertian, Aestivo-Autumnal, Malignant Tertian, or Pernicious
Bilirubinaemia in, and Blackwater Fever, **894**
Bone Marrow in, **147**
Cerebral Inflammatory Changes in, **562**
Diagnosis, Hyperglycorrhachia in, in Childhood, **576**
Inflammatory Changes in Pia Mater and Ventricle Ependyma in, **562**
Nervous Complications in, **131**
Pathology, Prophylaxis, and Treatment, **127**
Treatment, Alternative, in Quinine Susceptible Patients, **142**
Tertian, Benign
Treatment
Peracrina, 303, **140**
Sod. Stovarsol, **140**
Thyroid Gland in, **560**
Titles of Unnoticed Papers, 157, 579
Transmission by Lice, Question of, **128**
Treatment
Bismuth, **142**
Mercurochrome 220 Soluble, **142**
**Malaria**—*cont.*
Treatment—*cont.*
Methylene Blue, Appel's Method, **314**
Peracrina 303, **140**
Plasmochin, **133** *quat.*, **134** *bis*, **135** *ter*, **136, 137, 564** *quat*, **565** *bis*, **566** *ter* **567** *ter* **568** *bis*
Chemical Detection of, **568**
for Children, **565**
Cyanosis with, 565, **567**, 567
Toxic Symptoms from **566, 567** *bis*
Quinine, **137, 138** *bis*, **139**
Amylolytic Property of, Urine and Saliva after, **578**
Intramuscular, Tetanus after, **139**
in Obstetric Practice, **570**
Stovarsolate of, **139, 140**
Smalarina, **578**
Sod. Stovarsol, **140**
Some New Drugs, **143**

***MEDICAL ZOOLOGY** (*see also under Diseases concerned*), 251–293, 716–737, 804–839
Acarians, Parasitic, and Eruptive Fevers, **833**
and Typhus Fever, **833**
*Aëdes aegypti*, breeding in Test Containers, 273
in Tree Holes and Pots, **273**, 808
Egg Hatching, **816**
Larvae, Active and Tardy, **822**
Method of feeding on Cultures, **809**
Races of, and Yellow Fever, **274**
in Lagos, Variations of, **274**
Amoebic and other Cysts in Rio Faeces, **722**
Anaemia, Infectious, of Rats, *see Bartonella*
Antivenin Institute of America, **290, 729, 730**
of Butantan Institute, Efficacy, **731**
Arachnid Bite, causing Necrosis, **287**
*Argas vespertilionis*, in Cambodia, **834**
Arthropods, Harmful, N. America, **804**
Artifacts in Endamoebae (*C. ludlowi*), **256**
Anopheles
of Abyssinia, 266
of Anatolia, 810
of Argentina, **820**
of Bengal, **207**
of Brazil, **209**
of Canal Zone, Unusual Habitats, **271**
of Carolina, Winter Activities, **811**
of Danube, **268**
of Europe, Maxillary Armament, **812**
of Formosa, **268**
of India, Synopsis, **267**
of Italy, Zooprophylaxis, **269**
of Kenya, Key to, **819**
of Macedonia, Biology of, **813**
of Mexico, **812**
of Peking, **268**
of North America, Bionomics, **811**
of South Africa, Survey, **815**
of Sydney, 804
of Venetia and Region, **269**
*Anopheles algeriensis*, Larvae of, **818**
*atropos*, Habits, **272**
*bathanus*, n. sp., in Canal Zone, **817**
*fuliginosus*, Hind Tarsal Markings, **820**

* The Medical Zoology Section of this Index has been prepared at the Bureau, and a different system from that adopted for the other Sections has been followed.

**Medical Zoology**—*cont.*
*Anopheles*—*cont.*
*funestus*, Specimen from Mauritius, 1908, **817**
*gambiae*, in Crab-holes, **808**
*italicus*, n. sp., from Calabria, **818**
*maculipennis*, Biology, 270, **272**
Male Rate of, **820**
Maxillary Teeth, **821, 812**
and Peat Bogs, **815**
Protozoan Parasites of, **820**
Zoophily in Ukraine, **817**
*marteri*, n. sp. from Algeria, **818**
*philippinensis*, Varieties of, **818**
*pseudopunctipennis*, and Malaria in Argentine, **816**
Reproduction in Dry Season, **817**
*ramsayi*, Hind Tarsal Markings, **820**
*rondoni*, in Argentine, **819**
Anopheles
Breeding in Relation to N Cycle, **813**
Buccal Cavity in Classification, **271**
Morphology of, **814**
and Density of Population, **816**
Larvae
Algae and Food of, **805**
and Bogs, **270, 814, 815**
of Dutch East Indies, **815**
Enemies of, **805**
Food of, and Distribution, **811**
Rapid Determination, **272**
and Salt Waters, **819**
Measures against, Organization, **278**
Ovarian Follicles, Development of, **819**
*Balantidium coli*, in Culture, **263**
Action of Drugs on, **729**
in Monkeys and Anthropoids, **264, 719**
*Bartonella bacilliformis* and *B. muris*, **836**
*muris*, **837, 838, 839**
and Anaemia after Splenectomy, **836, 838, 254**
of Illinois, **835**
in White Rats, **836**
Blow Fly, Thermal Death Points, **826**
*Bodo caudatus*, Cytology of, **260**
Bug, Bed, Adaptation to Rodents, **833**
Reduviid, parasite of Mosquitoes and Phlebotomus, **831**
Caterpillar Dermatitis, **287**
*Chilomastix mesnili*, Encystment in Culture, **725**
*Chrysomyia albiceps*, on Calvados Coast, **827**
Control in Australia, **827**
*macillaria*, **282**
Ciliates, Coprozoic, Studies on, **264**
*Cimex lectularius*, Tularaemia in, **253**
Coccidiosis of Man, 261, **726**
Colubrids, Aglyph, Blood Properties, **732**
*Cordylobia anthropophaga*, Production of Immunity, 252
*Councilmania lafleuri*, **256**, 721
*dissimilis*, n. sp. from Man, **721**
*Crataerhina* sp. Parasitic on Man, **827**
*Cricetulus griseus*, Notes on, **254**
Culicidae, Salivary Pump, **809**
of Spain, **810**
*Culicoides pulicaris*, Head and Mouth Parts, **825**
Cysts, Amoebic and Other, in Rio Faeces, **722**
*Dermacentor andersoni*, Tularaemia in, **253**
*Dermatobia cyaniventris*, causing Myiasis, **283**

**Medical Zoology**—*cont.*
*Dientamoeba fragilis*, **257**
Diptera, New Species in Argentine, **825**
*Encephalitozoon chagasi* in Man, **719**
*Entamoeba coli*, parasitized by Sphaerita, **722**
*Enteromonas hominis*, **260**
Entomological Notes, D.E.I., **272**
Enquiry in Cochin China, **820**
*Euproctis chrysorrhoea* Larva, **287**
Fish Poisoning of Cuba (Ciguatera), **735**
by Tetrodon, **735**
Flagellate(s) of Human Gut at Montpellier, **724**
Urethritis, **257**
Fleas, Anatomy of Larvae, **286**
of Chickens, parasitizing Man, **287**
in Hides and Cotton-Seed, **830**
of Marmot and Ziesel, **286**
Mouth Parts of, **286**
of Rats, Assam, **286**
Caracas, **831**
India, Keys, **285**
New York, 285
Porto Rico, **829**
Rio de Janeiro, **829**
United Provinces, **285**
and Rodents, Regional Fauna, **285**
Flies, Bloodsucking, Method of Feeding, **826**
Early Larval Stages, **280**
and Pathogenic Germs, Tunis, **825**
of Tangiers Region, **281**
*Gambusia holbrooki*, in Larval Control, **275**
*Giardia intestinalis*, Infection of Gall-Bladder doubted, **259**
Pathogenicity, **259**
Unusual Case, **259**
*Lamblia*, Viability of Cysts in Rat, **260**
from Rat, Two Species, **724**
Giardiasis and Tubercle of Rectum, **260**
of Duodenum, **724**
Glossina, *see* Tsetse
*Glossina pallidipes*, 828
*Haemoproteus columbae*, Development in Lynchia, **262**
Halteridium of Pigeon
Action of Plasmochin on, **728**
Hamster, Striped, Notes on, **254**
*Heterometrus cyaneus*, Javanese Scorpion, **280**
Insects, Acquired Immunity in, **266**
Bloodsucking of Venezuela, **266**
Mouth Apparatus in, **827**
Insecticides, Flit and Rids, **278**
*Iodamoeba williamsi*
Cysts of, Polar Planimeter Measures, **722**
Excystation in, **256**
Host Parasite Relations, **721**
*Isospora hominis*, in Phillipines, **261**
Infection, Case of, **726**
*Ixodes ricinus*, Action on Skin, **288**
Jelly Fish Poisoning, Autopsy Findings, **734**
Lamblia, *see* Giardia
Larva migrans in Siamese, **290**
*see* Myiasis linearis
Larval Control, by Fish, **275**
in Upper Volta, **276**
Larvicides, 276, 277
Leech Infestation, **253**
Leishmania, Metachromatic Granules and Virulence, **261**
Linguatula Larvae in Man, in China, **290**

**Medical Zoology**—*cont.*
Linguatula Larvae—*cont.*
*Pentastoma denticulatum* in Liver, **209**
in Lung, **289**
*Macacus rhesus*, Gut Protozoa and Oxygen, **255**
Malaria, Avian, Blood Sugar Changes in, **262**
New Species, **727**
Three Species of, **726**
of Baboon, **728**
Metazoan Parasites, Immunity to, **252**
Mice, House, Outbreak in California, **737**
Mites from D.E.I., **833**
and Typhus, 833
Molluscs, African, Hosts of Bilharzia, **736**
Important in Yuman and Veterinary Medicine, **736**
*Monocystis mackiei*, in *P. argentipes*, **265**
Mosquitoes of Abyssinia, **266**
of Anatolia, **810**
of Belgian Congo, Synopsis, **266**
of Singapore, Early Stages, **809**
of Spain, **810**
of Sydney, **804**
Mosquito(es), Bites, Simple Preventive, **806**
Breeding Places
in relation to Algae, Queensland, **805**
in Test Containers, **273**
in Tree Holes, W. Africa, **273**
and Crab Holes, **808**
Control by Airplane, **276**
Historical, **276**
India, **267**
Development and *Chara fragilis*, **806**
Exposure of Larvae to Heat, **267**
Immunity to Plasmodia, **262**
Larvae, Food of, **805, 808**
Morphology of Buccal Cavity, **814**
Notes, **819**
parasitized by Bug, **831**
Problems, in New Jersey, **808**
proofing Barracks, **278**
on Ships reaching Liverpool, **804**
Zoophiles and Androphiles, **806**
Myiasis, Case in European, **281**
Intestinal in Breast-fed Infant, **283**
Linearis in New Guinea, **290**
in Macedonia, **282**
Palpebral by Dermatobia, **283**
Screw-worm in U.S.A., **282**
Nomenclature, Zoological
International Rules, **251**
*Ornithodorus moubata*, Effect of Fire, **834**
*papillipes*, Effect of Bite on Man, **824**
*venezuelensis* in Colombia, **288**
*Paederus fuscipes*, Action on Rabbit's Eye, **852**
Parasites, Intestinal, in Somalia, **265**
of Man, New, **719**
Metazoan, Immunity to, **252**
Parasitology in China, **716**
Medical, Teaching of, **717**
Mounting Media, **253**
Paris Green, for Control of Anopheles, **276, 277**
Moist Sand Method, **277**
*Phlebotomus*, Anatomy of, **824**
*argentipes*, Gregarine in **265**
at Bamako, **279**
at Bokhara, **824**
*Caucasicus* and *sergenti*, **824**
Indian Species, Notes of, **824**
on Pusa Estate, Survey, **822,**

**Medical Zoology**—*cont.*
Phlebotomus—*cont.*
Larvae, Hibernation of, Turkestan, **821**
*newsteadi* Female of, **824**
of North China, Bionomics, **822**
*papatasii* Heterodynamy, **279**
parasitized, by Bug, **831**
Protozoa, Intestinal, of, **726**
Variation of Species, **823**
Plasmodium(a), Avian, Infectivity for Mosquitoes, **262**
New Species, **727**
Three Species, **726**
*kochi* Flagellation of, **728**
*rouxi*, New Parasites of Birds, 727
Protozoa, Host Parasite Relationships, **717**
Infections, Diplococcus, in, **255**
of Eye and Nervous System, **720**
Recovery and Immunity in, **717**
Role of Thyroid, **725**
Intestinal, in Azerbaijan, **718**
in Children in Rio, **718**
in Chimpanzee, **265, 719**
Clinical Diagnosis of, **718**
Excystation of, **254**
Free-Living and Parasitic, **255**
Oxygen Pressure, Effect of, **255**
Pathogenicity, **265**
of Phlebotomus, **726**
and Termites, Symbiosis, **835**
Multiplication in Nerve Cell, **720**
Rats in Caracas, **831**
Reduviids of America, Biology, **832**
Rodents and Fleas
in New York, **285**
in Porto Rico, **829**
Regional Faunas, **285**
in United Provinces, **285**
and their Parasites, **830**
Sandfly Survey of Pusa, **822**
Sarcoptes of Norwegian Itch, **835**
Sarcosporidia, Human Infection, **263, 729**
Scorpions of Egypt, Key, **288**
Javanese Giant, Toxicity, **289**
Screw-worm Fly, Chemotropic Tests, **827**
Sergentella (?) in Chimpanzee, 265
Simuliidae, Salivary Pump, **279**
Snake Bite
Calcium Hypochlorite in Treatment, **733**
Stability of Solutions, **733**
Case in Arabia, **734**
Cobra, Diastasic Treatment, **733**
European Vipers, Serum Therapy, **292**
Rattlesnake, Case of, 730
Recurrence of Symptoms, **733**
Snake Venom
Antivenom, Titration of, **292**
Cobra, Action on Insulin-treated Animals, **291**
Action of Light on, **291**
Rattlesnake, Detoxification, **291**
of *Viper asperis*, **732**
Efficiency, **731**
Stegomyia, *see* Aëdes
Stoxal, Tests of, **277**
Surra, Laboratory Studies, **725**
Tabanidae, American Species, **828**
Life Span of, **283**
Salivary Pump, **828**
Tadpole, Spadefoot Toad, eats Mosquito Larvae, **805**

**Medical Zoology**—*cont.*
Tadpole—*cont.*
and Mosquito Larvae, Historical, 276
Termites, Symbiosis with Protozoa, **835**
Tetrodon, Poisoning by, **735**
Tetrodotoxin, Action on Skeleteal Muscle
Influence of Drugs, **736**
Ticks of Sudan, **288**
Titles of Unnoticed Papers, 292–3, 737–8
*Trichomonas hominis*, Viability and Transmission, **722**
Effect of *B. pyocynaea*, **724**
Ingestion of Erythrocytes, **723**
from Monkey, Cat and Man, **258**
in Urine, **257**
*Vaginalis*, **258**
as Cause of Vulval Pruritus, **724**
Trichomoniasis, Intestinal, Treatment, **258**
Trombicidae from D.E.I., **833**
*Trypanosoma pannai*, in Lynchia, **262**
Trypanosomes, Metachromatic Granules and Virulence, **261**
Nuclear Division in, **725**
Tsetse Distribution, Katanga, **284**
and Economic Effects, **829**
Food Supply, Precipitin Test, **284**
Investigation, Nigeria, **283**
Zululand, **828**
Tularaemia, Changes in Tick and Bug, **253**
Venoms, Coagulating and Anticoagulating, **731**
*Vipera aspis*, Venom of
Action on, of Ultra Violet Rays, **732**
Rabicidal Power in Vitro, **732**
*Xenophylla cheopis*, in Paris, **830**
Larvae, External Character, **831**
New South African Species, **831**
Zoophily of Mosquitoes, 269, 817

**MISCELLANEOUS**, 363–418, 486–501, 910–27, 996-1002
Alcoholism
Cochin China, 369
F. W. Africa, Coastal Region, 373
Anaemia, *see under* Blood
Antimony, *see under* Pharmacology, *infra*
Appendicitis : Cochin China, 369
Ascites in relation to Dysentery, 365
Bacteriological References
*Bacillus(i)*
Fusiform, and Spirochaetes, Common Origin of, **488**
Intestinal, Pathogenic, Identification of, **491**
Morgan's No. 1, Pyelitis from Infection with, **488**
of Typhoid, Paratyphoid and Dysentery, Antigens of, **487**
Incubator, Air of, as Source of Nitrogen or Carbon, **488**
Bats and Mosquitoes, Mutual Relations between, **914**
Blindness and its Causes ; Cochin China, **369**
Blood, and Blood Conditions
Anaemia, in Troops : Bombay, **403**
Pernicious
Dietetic Treatment, 370–1

**Miscellaneous**—*cont.*
Blood—*cont.*
Anaemia—*cont.*
in Rats with Induced Stone in Bladder, **499**
Yeast-like Fungi in Gastro-Intestinal Tract, in Importance of, **998**
Sickle Cell, **387, 388** *ter*, **1001** *bis*
Blood Cells, Photographic Method of Counting, **486**
Blood Chemistry and Blood Pressure, Effect on, of Tropical Residence, **496**
Blood Pressure Standards and, **496**
Studies in **496**,
Blood Complement, Dried, in the Tropics, **487**
Blood Films, Thick, New Method of Fixing for Finding Leishman-Donovan Bodies and Malarial Parasites, **500**
Blood-Groups among the Yoruba Tribe : West Africa, **498**
Blood Preparations, Staining of, Giemsa Method, **486**
Blood Pressure of Foreigners in China, **497**
Blood- Sugar Content of Human Blood in the Tropics, with Special Reference to the Panama Zone, **496**
Normal Values of, in the Tropics, **496**
Erythrocytes, Sedimentation-Rate of, in Certain Tropical Diseases, **496**
Haemoglobin Content of, Standard Method of Recording, **498**
Leucocytes, Granules of, Parasite-like Degeneration of, **492**
Occult, Testing for, in Faeces, **497**
Quinine in, Quantitative Estimation of, **493**
Bright's Disease, in British Guiana, **492**
Bronchitis, Chronic, with Emphysema ; India, **365**
Cancer, *see under* Tumours, *infra*
Carbon Tetrachloride, *see under* Pharmacology, *infra*
Cardiac Disease in Natives : Dahomey, 373
Climate, Hot, Possibilities of Overcoming, **499**
Chaulmoogra Oil, *see under* Pharmacology, *infra*
Chemo-therapeutic Effect, Optimal, Conditions for
Dependence of Efficacy on Concentration of Drug, **494**
Results with Man, **494**
Chemotherapy
Present Position of, from the Clinical Standpoint, **921**
Reticulo-Endothelial System and, **925, 926**
Chenopodium Oil, *see under* Pharmacology, *infra*
Countries and Places referred to, Diseases &c., Prevalent in
Africa, *see Parts under Names*
Algeria
Algiers, Jamin's Glossitis at, **392** *bis*

**Miscellaneous**—*cont.*
Countries, &c.—*cont.*
America
Central
Diseases Prevalent, **377**
Machete *v* Microbe in, **381**
United States of
Negroes of, Cholelithiasis and Cholecystitis in, **402**
Tropical Medicine in, Present Status of, **381**
New York City
Tropical Diseases of Interest in, **382**
Annam: Typhus Case resembling Rabies in, **402**
Australia, Tick Paralysis in Man in, **926**
Belgian Congo
Diseases Prevalent, 373–4
Native Medicinal Plants of, **408** *bis*
Tropical Pathology in, **372**
Work in, of the Itinerant Doctor, **373**
Katanga, Pneumonia in, 393
Stanleyville, School Hygiene at, **372**
Brazil
New Human Disease in, due to *Encephalitozoon chagasi*, **386**
Pathology of, **382**
British Guiana
Bright's Disease in, **492**
Elephantiasis in: Surgical Treatment, **383**
Uraemia in, in Negro, **405**
Ceylon
Melioidosis in a European in, **382**
China
Blood Pressure in, of Foreigners, **497**
Book [largely] on, Reviewed, 330
Yunnanfu: Diseases Prevalent, **368**
Cochin China
Diseases Prevalent, **369**
Infant Mortality Statistics, 369
Melioidosis in, **382** *bis*
Colombia
Magdalena, Coast Lands of, Infectious Diseases in, **378**
Dutch East Indies
Amyloid Degeneration in, **398**
Genito-Rectal Syndrome in, **394**
Haemolytic Icterus in Javanese Soldier, **395**
Java: Serological Experiences in, **495**
East Africa: Heart Displacement in Natives, **394**
French West Africa
Diseases Prevalent, 373
Native Troops in, Recruitment of, **372**
Egypt: Hydrocele in, Relation to, of Funiculitis, **397**
Fiji: Influenza in, **393**
Guatemala
Disease Resistance Compared with Wound Resistance in, **381**
Epidemiology and Camp Practice in, **378**
Honduras: Diseases Prevalent, **380**
India
British
Book on, Reviewed, 379

**Miscellaneous**—*cont.*
Countries, &c.—*cont.*
India—*cont.*
British—*cont.*
Diseases Prevalent, 364 *sqq.*
Geographical Distribution of Some, **364**
Madura Foot in, 364, 365
Medicinal Plants of, **410, 411**
Mosquito Proofing of Barracks, **913** *bis*
Bombay
Anaemia Amongst Troops in, **403**
Calcutta
School of Trop. Med., Lab. Findings and their Significance, **923**
Delhi
Appendicitis in Indian Women, **404**
and the Gilgit Agency, Lathyrism in, **397** *bis*
Rural, Medical Relief in, **367**
Portuguese
Goa: Epidemic Disease of Children, Prevalent at, since 1921, **401**
Istria
Rovigno Territory: Larvicidal Fish Used, **915**
Italy: Southern, Physician's Notes on a Journey through, **368**
Sicily: Diseases Prevalent, 368
Kenya
Wateita People, Diseases Prevalent Among, **373**
Liberian Hinterland
Infant Mortality, 375
Pathology, **374**
Madagascar, Southern
Endemic Lymphangitis in, **396**
Malaya
Melioidosis in a Horse in, **382**
and Singapore, Health in, of European Children, **924**
Singapore, Naval Base Health Organization **911**
Morocco
Elephantiasis of Moor's Scrotum, Cured by Operation, **385**
Enteric with Jaundice: Fatal Case, **401**
Tangier, Haematuria, So-called Essential, Frequent at, **390**
Netherlands,
Transactions of N. Assoc. of Trop. Med. (1927), **370**
North Africa
Senegalese Troops in, Disease Incidence among, **924**
Palestine: Glossitis, Epidemic, **996**
Panama
Health Conditions, Past and Present, **910**
Philippine Islands
Metabolism, Basal, among Filipinos, **496**
South Africa
Bantu Races of, Surgical Diseases among, **375**
Tropics
Fitness for Service in, **925**
Infant Feeding in, **923**
Medical Officers for, Education of, **921**

**Miscellaneous**—*cont.*
Countries, &c.—*cont.*
Tropics—*cont.*
Medical Research on, Organization of, **363**
Nerve Affections in, of Whites, **403**
Upper Volta Region, Larvivorous Fish of, **914**
Venezuela : Diseases Prevalent, **377**
West Africa
Yoruba Tribe, Blood-Groups among, **498**
Death of Sir Percy Bassett-Smith, 55
Dental Affections ; Wateita People, 373
Diarrhoea Outbreak in Convict Camp near San Juan, Porto Rico, **1002**
Diphtheria : India, 365
Dropsy, Epidemic, India, 364
in Rats with Induced Stone in Bladder, **499**
Elements, Spirillicidal and Trypanocidal Activity of, Relation between, and their Electro Chemical Classification, **495**
Elephantiasis, *see also under* **HELMINTHIASIS,** FILARIASIS
in British Guiana : Surgical Treatment, **383**
of Scrotum of Moor, Cured by Operation, **385**
Encephalitis
Epidemic : Yunnanfu, 368
Post-Encephalitic Parkinsonism 369
Endocarditis, Rheumatic : India, 365
Favismus, Further Researches iu, **385**
Fish
Larvivorous : Upper Volta Region, **914**
Neotropical Killifishes, allied to Rivulus, Genera of, **915**
Genito-Rectal Syndrome, The, D.E.I., **394**
Glossitis of Jamin at Algiers, **392** *bis*
Goitre
Endemic
India, 364, 365
Yunnanfu, 368
Exophthalmic ; India, 365
Gonorrhoea
Incidence
Liberian Hinterland, 375
South Africa, in Bantus, 375
Haematuria, So-called Essential, Frequence of, at Tangier, **390**
Hodgkin's Disease, with Periodical Rises of Temperature, **391**
*Holarrhena antidysenterica*, and its Alkaloid Conessine, Studies on, **410, 411**
Hospital Orderlies, Native, Training of, 376
Icterus, Haemolytic, in Javanese Soldier, **395**
Influenza
Book Reviewed on, **753**
in Colombia, 379
Jaundice, Haemolytic, in a Syphilitic with Splenomegaly, and *Lamblia* in Bile, **399**
Lathyrism : India, 364, 365

**Miscellaneous**—*cont.*
Liver Cirrhosis
Toxic, and Primary Liver Cell Carcinoma, complicated by Histoplasmosis of the Lung, **396**
Tropical, with Special References to the Fragility of the Red Blood Cells, **395**
Lupus vulgaris : India, 365
Lymphangitis Endemic : Southern Madagascar, **396**
Medical Officers, Education of, for Service in the Tropics, **921**
Medical Research in the Tropics, Organization of, **363**
Medical Research Workers, Fourth All-India Conference of, Calcutta, Dec. 13–16, 1926, **366**
Melioiodosis
Incidence
Ceylon, in a European, **382**
Cochin China, 382
Saigon, *B. whitmori* Culture from, **382**
Malaya, in a Horse, **382**
Meniscocytosis, *see* Anaemia, Sickle Cell, *under* Blood, *supra*
Microscope Practice, Low Magnifications in, **486**
Mosquito Control, Methods and Mechanism of, **912**
Mosquito-Proof Gutterings, **913**
Mosquito-Proofing of Barracks, India, **913** *bis*
New Disease of Man, Caused by *Encephalitozoon chagasi*, **386**
Opium, *see under* Pharmacology, *infra*
Osteomalacia : India, 365
Osteomyelitis in S. African Bantus, 376
Oxygenation, Problems which may be Studied by, **922**
Pastoria, The, of Kindia, New Guinea, **371**
Pharmacology
Antimony
Organic Compounds of, Action of, Investigation of, **412**
Salts of, Effects of, on Conception and Pregnancy in Animals, **413**
Carbon Tetrachloride
Dangers of, **416**
Toxicity of, in Dogs, in relation to Calcium, **417**
Chaulmoogra Oil,
Pharmacology of, **416**
Chenopodium, Oil of
Active Principles of, Adsorption of, by Carbon, **418**
Constituents of, **418**
Fatal Poisoning with, **418**
Opium, Poisoning of by, in China, **368**
Quinamine, Pharmacological Action, of **415**
Quinine
Anaphylaxis, **416**
in Blood, *see under* Blood, *supra*
Effect of, on Phosphorus Metabolism in Man, **415**
Idiosyncrasy to Three Cases, **416**

**Miscellaneous**—*cont.*
Pharmacology—*cont.*
Quinine—*cont.*
Injections, Muscular, Tetanus following, **396**
Stovarsol
Book on, Reviewed, **584**
Poisoning by, **414**
Treparsol, Effects of, **414**
Poisons, and Poisoning
Arrows, African Poisoned, Pharmaco-Bacteriologic Study of, **409**
Carbon Tetrachloride
Dangers of, **416**
Toxicity of in Dogs, Relation to, of Calcium, **417**
Chenopodium Oil: Fatal Case, **418**
*Jatropha curcas*, **412**
Opium, Yunnanfu, 368
Rat-Poisoning Substance in Red Squills, **411**
Stovarsol (Spirocid) Poisoning: Six Cases, **414**
Poliomyelitis, Anterior, Acute; India, **365**
Pyelitis, from Infection with Morgan's No. 1 Bacillus, **488**
Quinamine, *see under* Pharmacology, *supra*
Quinine, *see under* Pharmacology, *supra*
Reticulo-endothelial System, the Relations of, to
Chemotherapeutics, **405** *bis*, **407, 408**
Relapsing Fever, **406,** 407
Rheumatism and Mitral Disease: Yunnanfu, 368
Rickets: India, 365
Scarlet Fever in
Cochin China, 369
India, 365
Spirochaete Infections, Stovarsolan Prophylaxis in, Influence on, of the Reticulo-Endothelial System, **925**
Spirochaetes and Fusiform Bacilli, Common Origin of, **488**
Spleen Rupture: Forensic Significance, **956**
Spleen, Surgery of, **996**
Splenectomy and its Complications in Egyptian Splenomegaly, **997**
Splenomegaly
Egyptian, Splenectomy in, and its Complications, **997**
Primary
Treatment, **400**
Operative, **399**
Stone
in Cochin China, 369
Experimental Production of, in the Bladder, **499** *bis*
in India, 365
of Kidney and Bladder, Remarks on, 1001
Stovarsol, *see under* Pharmacology, *supra*
Tetanus following Intramuscular Injections of Quinine, **396**
Titles of Unnoticed Papers, 500–1, 927
Treparsol, *see under* Pharmacology, *supra*
Tropical Medicine, Book on, Reviewed, 329

**Miscellaneous**—*cont.*
Tumours
Cancer
Incidence
Cochin China, 369
Honduras, 380
India, 365
South Africa, in Bantus, 376
Vaccination, Oral, against Dysentery, Typhoid, and Cholera, **490**
Vaccine Therapy, Discussion on, **489**
Wassermann Reagins, Production of, by means of Trypanosomes, **495**

**MYCOLOGY, TROPICAL** (*see also* **DERMATOLOGY TROPICAL**), 20–5, 163–6, 739–52
Diseases
Acladiosis
Incidence
Argentina, **741**
Brazil, **741** *bis*
Pathological Histology, **741**
Actinomycosis
Incidence
Algiers: Facial, **740**
Uruguay, **740**
Intradermal Reaction in, with Filtrate from Culture of *Actinomyces bovis*, **740**
Aspergillosis
Pulmonary, **747**
Serological Reactions in, **746**
Banti's, *see* Mycotic Splenomegaly, *infra*
Blastomycosis
Brazilian Forms: Differential Diagnosis, **743**
Etiology: Clinical Varieties, **742**
Granuloma, Coccidioidal
*Coccidioides immitis* of
Culture Filtrates of, as Antigen, in Complement Fixation Test, **743**
Sensibility of, **743**
Specific Skin Reaction with, **743**
Evolution Forms and Systematic Position . . . **745**
Incidence, All Forms
Brazil, 25, **743, 745** *ter*, **746**
U.S.A., 743
California, 746
Pennsylvania, **745**
Organism of, Effect on, of Gentian Violet, **746**
Pulmonary **746**
Bronchomycosis
Aspergillus-caused: Stanley Pool, **747**
Etiological Agent, **22**
Bronchomoniliasis: Porto Rico, **747**
Dermatitis, Blastomycotic: First Case, Brazil, **744**
Forms found in D.E.I., 371
Granuloma
Coccidioidal, *see* Blastomycosis, *supra*
of Conjunctiva, Caused by *Rhinosporidium seeberi*, **748**
Madura Foot, Disease Resembling: Venezeula, 377

**Mycology, Tropical**—*cont.*
DISEASES—*cont.*
Moniliases
Buccal, **23**
of Tongue, **23, 24**
at Lagos, **748**
Mossy Foot in
Central America, 377
Venezuela, 377
Mycetoma, Primary, of Breast, **741**
Mycosis
Laryngeal: Argentina, Parasite associated with, **744**
Pulmonary, due to *Oidium brasiliense*, **25**
Splenic, and Mycotic Splenomegaly, 748 *bis*, **749, 750** *bis*, **751** *quat*
Histology, **165**
Incidence
Algeria, &c., **163** *ter*, **165**, 166
Egypt, **165**
Laboratory Diagnosis, **164**
Pathological Anatomy, **164**
of Tongue, **24**
Tropical, Discussion on, **739**
Unrecognized, **739**
Pityriasis versicolor, *Malassezia furfur* in, **742**
Torulosis, Naso-pharyngeal, **24**
FUNGI
in Bello-Horizonte, Study of, **21**
Dermatophytes, the, Relationship of, to the Gymnoascaceae, **20**
*Epidermophyton rubrum*, Clinical, Experimental, and Parasitological Study of, **742**
*Megalosporidium* of Posadas, Parasite allied to, in Laryngeal Mycosis, **744**
*Microsporum lanosum* from Ringworm, **742**
Monilia affecting Tongue, **23, 24**
Found in
Pernicious Anaemia, **23**
Respiratory Tract, **21, 22** *ter*
N. sp. in Suspected Pulmonary Tuberculosis, **22**
*Oidium brasiliense*, Lesions Caused by, **747**
*Penicillium* n. sp., Isolated from Mycosis of Tongue, **24**
*Torula*, *see* Torulosis, *under* DISEASES, *supra*
*Trichophyton* n.spp., from Ringworm, **741**

**OPHTHALMOLOGY, TROPICAL**, 475–85, 990–5
Anaesthesia, Surface, for Ocular Operations, Formulae for, 484–5
Aspergillosis of Orbit, **483**
Cataract
Book on, Reviewed **756**
Extraction
After-Results, **480**
Anaesthesia, Deep Infiltration, in, **481**
Conjunctival Bridge in, **993** *bis*
Infection in, Prevention of, **481**
Ray's Method, **993**

**Ophthalmology, Tropical**—*cont.*
Cataract—*cont.*
Extraction—*cont.*
in Senile Cases: India, 995
Corneal Suture in, **993**
Forms seen in Egypt, 484
Conjunctiva, Affections of, *see also* Trachoma, *infra*
Bilharziasis, **990**
in Cochin China, 369
Conjunctival Congestion after Urea-Stibamine Injection, **413**
Conjunctivitis
Among the Wateita, 373
Granular, Chronic, Experimental Inoculation of, **990**
Granular of Man, Relation of, to that Natural in Rabbits, **476**
Kochs-Weeks form, Prophylactic Vaccination against, **475**
Necroticans Infectiosa and Conjunctivitis Tularensis, Differential Diagnosis between, **475**
Tularensis, Atypical, **990**
Vernalis, or Spring Catarrh of Conjunction; Indian Cases, **475**
Hints on, **476**
*Rhinosporidium kinealyi* in, **990**
Cornea, Affections of
Conical Cornea: Egypt, 484
Keratomalacia
China, **480**
Malaya, in Indian Labourer, **992**
South Africa, in Kaffir Girl, **480**
Leukomata, Corneal, Tattooing of, **480**
Dacryocystitis, Chronic, Treatment of, with Paraffin Injection, **480**
Eye Affections in
Echinococcosis, **482**
Leprosy, **482**
Malaria, **482**
Malaya, Common, Neglect of, **479**
Eyeball Enucleation, Intraorbital Anaesthesia in, **994**
Eye Diseases Prevalent in
Egypt, **166,** 484
Madras, **995**
Eye Inflammations, Non-specific Protein Therapy in, with Special Reference to Use of Typhoid Vaccine, **483**
Eyelids, Affections of
Entropion, Operation for, **475**
Thelaziasis, **482**
Glaucoma, in Egypt, 484
in Patients with Sclero-Cicatricial Trachoma, Modified Lagrange Operation for, **994**
Treatment by Glaucosan, **994**
Unilateral, **994**
Granuloma, Orbit-Invading, due to an Aspergillus, **483**
Helminthic Affections of the Eye
Echinococcus of Orbit, **482**
Thelaziasis of Eyelid, **482**
Iritis, *see also under* Uvea, *infra*
Clinical and Experimental Observation on Foreign Protein especially in, **483**

**Ophthalmology, Tropical**—*cont.*
Lachrymal Sac, Affection of, *see* Dacryocystitis, *supra*
Keratomalacia, *see under* Cornea, Affections of, *supra*
Lens, Affections of, *see* Cataract, *supra*
Non-Specific Protein Therapy, **483**
With Special Reference to use of Typhoid Vaccine, **483**
Ophthalmia, Gonococcal : Egypt, 484
Orbit, Affections of
Aspergillosis, **483**
Echinococcosis, **482**
Refraction, Errors of, among Filipinos, **484**
Reports
Egyptian Government, Ophthalmic Section (1924 and 1925), **484**
Madras Government Ophthalmic Hospital (1927), **995**
Retinal Changes in Malaria, **482**
Trachoma
Control of
Among School Children, Philippines, **477**
Community, China, **477**
Diagnostic Signs of, Limbus Changes as, **479**
Epidemiological Characters of, in Russia, **991**
Epidemiological Factors of Infection, Especially Water Supplies : Takao, Formosa, **991**
Etiology of, **990**
Experimental Condition Resembling, Produced in Monkeys by a Micro-Organism Isolated from American Indian Trachoma, **476**
Experimental Studies of, **476**
and Granular Conjunctivitis ; Nature : Origin, **476**
Incidence
Arabia
Mecca, **479**
Nejd, **479**
Argentina, Northern, **479**
Cochin China, 369, **477, 478**
Dutch East Indies
Amboina, **478**
Egypt, **484**
Monocular, **479**
Formosa : Takao, in Children, **991**
French West Africa, 373
Philippine Islands, **477**
Russia, 991
Syria, **478** *bis*
Tunis, **478**
Intracellular Inclusions of the Conjunctival Epithelium, especially in ; Origin : Nature, **477**
Treatment, **992**
Chaulmoogra Oil, **992** *bis*
Diathermic, **479, 480**
Friction of Conjunctiva, **991**
Ultra-violet Rays, **991**
Tularaemia of Conjunctiva, **990**
Uvea, Affections of
Iritis due to Relapsing Fever, **993**
Iritis and Iridocyclitis, Treatment by Bacterial Antigen, **993**
Uveitis, Bacterial Antigen in, **993**

**OROYA FEVER AND VERRUGA PERUANA,** 53–4, 521–27
Bacteriology
*Bacterium peruvianum* n. sp. a Secondary Invader of the Lesions of Verruga Peruana, **526**
*Bartonella bacilliformis*, Strains of, Comparative Studies of, **524**
Identity of, 53, 54, **521** *bis*
Oroya Fever
Bacteriology
*Bacterium murium* n.sp., Cultivation of, **525**
*Bartonella bacilliformis* and *B. muris*, Comparison of, **525**
Etiology of, **521, 524, 525, 526**
Verruga Peruana
*Bartonella bacilliformis* Cultures of, Verruga Peruana Caused in Monkey by, **524**
Etiology of, 521
Experimental Investigations in, **54, 523, 524**
Lesions of, Secondary Invader of, **526**
New Conception of, **526**
Organism of, **53,** *bis* **527**
Pseudoverrugas : Brazil, **703**

**PELLAGRA,** 439–45, 880–7
Alkaline Reserve and Blood Calcium in, **445**
Black Tongue in Dogs, and Pellagra, **445, 885, 886** *bis*, **887**
Blood in, **882**
Cases of, **442** *bis*, **883**
Causation, **441**
Clinical Features, **441**
Dermatitis, Pellagrous, **884**
Diet in relation to, **441**
Economic Aspects, **882**
Incidence
Age
Infancy and Childhood, U.S.A., **880**
Among Chronic Alcohol Addicts, **440**
Geographical
Bulgaria : Sofia, 883
China, **443**
Peking, **443**
India, 365
Ireland : Familial, **444**
Poland, 883
U.S.A., 880, 881
Arkansas, 882
Mississippi Flood Area, **439**
Philadelphia, 440
Nature of, **880**
Pellagra-like Lesions in Rat, associated with Vitamin B Deficiency, **1154**
Pellagra-Preventive Action of Cowpea and Commercial Wheat Germ, Study of, **444**
Prophylaxis, **880**
Relations of, to Pernicious Anaemia, **883**
with Special Reference to the Skin and Mucous Membrane, **881**
Treatment, **441**

**PLAGUE**, 314–21, 671–6
Among
Insects, 320
Man, *see* HUMAN, *infra*
Primates, **675**
Rodents, *see infra*
Bacteriology, **314**
*Bacillus pestis* = *Pasteurella pestis*
Agglutination and Absorption Tests, **674**
Alkalinity Production by, in Broth: Effect of this on Toxicity and Potency of the Prophylactic, **320**
and *B. pseudotuberculosis rodentium*; Differentiation of, Fitness for, of Salt Media, **675**
Bactericidal Action on, of Organic Mercury Compounds, **319**
Colonies of, Atypical Forms of, **674**
Discovery of, **178**
Infection with, of Little Animals *per inhalationem*, Apparatus for, **320**
Books on, Reviewed, 248, 249, 753
Fleas, Species concerned in Spread of, 314, 315
*Xenopsylla cheopis* in Ecuador, **671**
HUMAN
BUBONIC
Incidence
Nairobi: Epidemic (1926), 318
Venezuela, **672**
Introduction of, into Panama Canal Zone, Possibility of, **317**
Treatment
Anti-Plague Serum, Intravenous, **673**
Iodine, Camphor, and Thymol, **318**
Incidence, All Forms, or more than one Form
California, 1900–1925; Pathology: Bacteriology, **314**
Cochin China, Diminishing, 369
Ecuador, **671**
Egypt: Epidemiology, **315**
Europe, 14th Century, Defence Reactions during, **178**
France
Bordeaux, and the Birth there of Hygiene, **176**
Holland: Utrecht: History, **176**
India, 319, 364
Punjab
Epidemics of, Predicting, **317**
Nigeria (1926), **376**
Soviet Republics, S.E., **671**
Sweden (1927), **671**
Pathology, **314**
PNEUMONIC
Haemorrhagic Bronchopneumonia resembling, due to a Bacillus of the *B. mucosus capsulatus* Group, **487**
History, **673**
Incidence
Java, **673**
Madagascar, **317**, 319
Intestinal Haemorrhage in Rats with Septicaemic Plague as a Factor in the Spread of, **672**
**Plague**—*cont.*
HUMAN—*cont.*
PNEUMONIC—*cont.*
Prophylaxis: Serum, **319**
and Septicaemic: Java, **673**
Treatment, in Java, **673**
Prophylaxis
Haffkine's Anti-Plague Vaccine for use among Primates, **675**
Nairobi Plague Prophylactic: Potency, **675**
Vaccines, Protective, Problem of Plague and, **321**
SEPTICAEMIC
Java; Treatment, **673**
in Rats in relation to Spread of Human Bubonic Form, **672**
in Tame Rabbits, and its Relation to Rat Plague, **676**
Spread of, Rodents concerned in, 314, 315, **672**
Treatment
Iodine, Camphor, and Thymol, **318**
Serum, **319**
Writings on, of Abi Ga'far Ahmed, **177**
RODENT
Diagnosis, Differential, from Pseudotuberculosis, Fitness for, of Salt Media, **675**
Rat
Diagnosis, **318**
Incidence
Ecuador, **671**
West Africa: Lagos, **318**
Septicaemic Plague in Tame Rabbits in Relation to, **676**
Rodents concerned in Spread of, 314, 315, **672**
Titles of Unnoticed Papers, 321, 676

**Pneumonia and other Pneumococcic Infections**
Bronchopneumonia, Haemorrhagic, Resembling Pneumonic Plague, due to a Bacillus of the *B. mucosus capsulatus* Group: Panama, **487**
Incidence
Belgian Congo: Katanga, 393
Colombia: Magdalena Coast Lands, 379
Dutch East Indies, **1000**
Tropical Populations, **1000**
Lobar
Incidence
Guatemala, 381
Honduras, 380
Philippine Islands, **392**
Pneumococcic Meningitis: Honduras, 380
Treatment
Hypodermic Injections of Pleuritic Fluid, **393**
Pot. Permang., Rectal, **1000**

**RABIES**, 187–99, 706–15
Animals Conferring by Biting, 188, 195
Animals other than Dogs suffering from, 188, 193
Antirabic Serum, Efficiency Reduced by Ultra Violet Rays, **708**
CANINE
Gastro-intestinal Symptoms in, **714**
Incidence, *see*, *infra*, Incidence

**Rabies**—*cont.*
CANINE—*cont.*
Infection from, of Man, **190**
Prophylaxis
for Malaya, **193**
Vaccination with Formolized Vaccines, **195**
Saliva of Dog Infected with Fixed Virus, Infectivity of, **196**
Treatment
Prolonged, by Calmette's Method: Results, **196**
Central Nerve Cells, Constituents of, Parenterally Injected, Influence of, **195**
Complement Deviation Experiments, **710**
Cross-Immunization Experiments, **189**
Deaths from, due to Playing with an Incubating Dog: Hankow, **190**
Diagnosis, **710** *ter*
Experimental, Use of Rodents for, **714**
*Encephalitozoon Negrii*, in Dog's Brains, in Canine Encephalomyelitis, **189**
EQUINE, in Mule, **714**
Gastro-Intestinal Symptoms in Experimental Animals and in Dogs, **714**
Haematology
in Declared, and during Treatment, **191** *ter*
Leucocytes or Leucocytic Extract, Action of on Virus, **192**
Polymorphonuclear Leucocytosis, **192**
in Herbivora, Prophylaxis for, Vaccination by Carbolized Glycerine Vaccine, 195
HUMAN
Clinical Notes, **709**
Pathology, **709**
Unusual Case, **709**
Immunization in
Experiments on, Negative Results, **708**
Local, Tests for, **709**
Incidence in Animals and Man
Africa
Central Kavirondo, **709**
South, **194**
West, French, **189**
Canada: Ontario, **197**
Haiti, **194, 715**
Hungary, **193**
India
Mortality of, Race in Relation to, 188
Assam: Shillong, **193**
Coonoor, **193**
Kasauli: Statistics, **712**
Japan: Tokyo, **193**
Malaya, **193**
Russia, **196,** 711, 712
U.S.A.
Elimination of, Practicable, **715**
Statistics for Various States, **715**
Uruguay, **194**
Yugo-Slavia: Novi-Sad, **712**
International Conference on, Paris.
Transactions and Reports, **187** *sqq.*, **706**
in Jackals, India, 188
Legislation on: U.S.A., **715**
Pasteur Institutes, Treatments in, **193**
Statistics of 35, **198, 199**

**Rabies**—*cont.*
Problems of, Actual, **187**
Prophylaxis, *see also under* CANINE, *supra*
Antirabic
Vaccination
of Animals, **706**
Methods of Pasteur, Fermi, and Roux, **188**
New Attempts, **709**
Serological Side-Effects of, **191**
Antirabic Serum for, Conditions under which Acting in the Body, **191**
Control Measures, Various Countries, **193**
Pseudo-Rabies Psychoses, **191**
Rabic Symptoms due to Non-Rabic Causes, **710**
Rabicidal Properties of Hedgehog Serum, **191**
Rats and Mice, suggested Use of, for Diagnostic Purposes, **714**
Recovery from, Spontaneous, **197**
Review of Recent Articles, **187, 706**
Statistics, **712, 715**
Titles of Unnoticed Papers, 197, 715
Treatment
Accidents during
Paralytic, 193, **195,** 198–9, **706** *bis*, 712, **713**
Attempts to Provoke, **196**
History of, **196**
Local, **706**
Treatment
Centres for: West Russia; Results, **196**
of Rabbits, Intensive: Absence of Paralytic Accidents, **713**
Various Methods
Abscess-formation as Inapplicable in, **196**
Pasteur Methods, Modifications of, **706**
Results during last 30 years, **192**
Standardization of: Possibility of, queried, **187**
Vaccination with
Carbolized Vaccine, Results, Tabulated, **706**
Fresh Glycerinated Cords, 710
Frictionally, Local, **711**
Hogyes–Phillips, and Fermi Methods, **711**
Italian and Sardinian, **711**
Semple's Modification of the Latter, **711**
Single Dose of Fresh Fixed Virus, Inadequacy of, **714**
Schaburow's Method, Results, **712**
Virus
Action on, of
Leucocytes or Leucocytic Extract **192**
Centrifugation, **190**
Ether, **190**
Oxygenation in regard to Loss of Virulence, **190**
Experiments on Dissemination and Diffusion of, in Rabbits, **709**
Filterable, **188**
Nature of, **706**
Route in Body, after a Bite, 709 *bis*

**Rabies**—*cont.*
Virus—*cont.*
Virulence of
in Brains, **708**
Intracorneal, (Algiers Virus), **707**
in Salivary and Suprarenal Glands, **707** *bis*, **708**
Yatren Solution Rendering it Avirulent, **708**
Fixed
Action on, of Rapid Desiccation of the Rabid Brain, **190**
Influence of, on Blood-Finding when Intraspinally Injected, **710** *bis*
Fixed and Street
Avirulence Produced in, by Ultra-Violet Rays, **708**
Presence of, Simultaneously in a Brain, Can it be Demonstrated **713**
Street, Action on, of Ether, **190**

**RAT-BITE FEVER,** 97–8, 600–1
Cases of, **98**
Causal Organism of
Classification of, **97** *bis*
*Spirillum minus* Strains of, Unity of, **600**
Complement Fixation Reaction in, **98**
Experimental
and Infection with Mouse Spirilla, Comparative Pathology of, **97**
in Rodents, Therapeutic Effect on, of Oxyacetyl - Aminophenyl-arsenic Acid, and of Other Chemotherapeutic Agents, **600, 601**
Spirochaete of, Action on, of Bismuth, **98**
Experiments on, **600**
Incidence
Italy, **601**
New Guinea, **97**
U.S.A.: Alabama, **601**

**RELAPSING FEVER AND OTHER SPIROCHAETOSES,** 83-96, 585–99
African, Induced; Blood Changes in, **89**
Treatment by Sod. Stovarsol, 397
European and Persian Forms, Differences between, 585
Experimental in
Mice and other Rodents
Therapeutic Action in, of Bismuthyl Derivatives of Organic Hydroxy-Acids, **94**
Salvarsan Treatment of, **89**
Experimental Treatment with, **998**
Relapses in, Pathology of, **589**
Heart of Man in, Resting Minute Volume of, **94**
Immunity in
Cross-Immunity Experiments on Animals
Dakar, **587,** 587 *bis*
Question of, Re-Infection and, **591**
Retention of, in Infected Paralytics, **591**
Study of, **590**

**Relapsing Fever**—*cont.*
Incidence
Africa: Sahara, Tunis, &c., 83
A.–E. Sudan: Louse-Borne Type Prevalent in 1926–7, **586**
China: Yunnanfu, 368
Colombia, **585**
India, 364, 365
Kenya: Meru, **87**
Persia, **585**
Senegal
Dakar, 87 *bis*, 587 *ter*.
Spain, 83 *bis*, **88, 91** *bis*, **94, 586**
Tanganyika Territory, 1915, in Belgian Troops, **588**
Transcaucasia, 585
Turkestan, 585
Infection of, in Paralytics, Immunity-Retention in, **591**
Origin of, **83**
Other Spirochaetoses
Mechanism of Crisis in, Development of Spirochaetes and, **84**
Pathology and Therapy of; Parabiosis, **92**
Transmission Experiments, Common Error in, **25**
Bronchial, **96** *bis*
Bloody, **96**
Bronchospirochaetosis, **96** *bis*
Intermittent Pyrexia Associated with, and probably Due to **599**
Pulmonary, **96, 588**
Pulmonary Spirochaetal Gangrene, **96**
Prophylaxis: Spirocid in, **780**
Recent Work on, Summarized, **595**
Re-Infection with, and the Immunity Question, **591**
Reticulo-endothelial System's Influence on, **406,** 407
Spanish, 83 *bis*, **94, 586**
Pig Resistance to, **91**
Studies on, **88**
Spirochaetes = Spirilla = Treponema Associated with
Blood
Experimentation on, Rules for, **596, 597**
New, Transmitted by *Ornithodorus* sp., Living in Rodents' Burrows, **89** *bis*
Book on, Reviewed, **840**
in Brains of Various Rodents and of Man
Maintenance of, Rôle in, of the Spleen, **593**
Persistence of, Experiments on, **592** *bis*, **593, 594** *ter*
Culture-Media for, 595
Dakar Strains, **87** *bis*, **587** *ter*
Identity of, in Shrew and Man, **587**
Immunity Conferred by, on Grey Mouse, **587**
Susceptibility to, of Laboratory Animals, **587**
Development of, and Mechanism of Crisis in, **84**
of Field Vole, Transmission of; by *Ornithodorus moubata*, **90** *bis*

**Relapsing Fever**—*cont.*
Spirochaetes—*cont.*
and Fusiform Bacilli, Identity of, **95** *bis*
Genetic Relationship of, **590**
Measurement of, **595**
Neurotropic and Somatotropic Races of, **93** *bis*
Penetration by, of Mucosa, **92**
Persistence of, in Central Nervous System, **592, 593** *bis*, **594** *ter*
Shrew, Experimental Transmission by Louse, **588** *bis*
of Spanish Form of the Disease
Presence of, in Morocco, **586**
Transmission of, by *O. moubata*, **91** *bis*
Species referred to, by Names
*crocidurae*
Transmission of, by Two spp. of *Ornithodorus*, **91**
*duttoni*
Experimental Infection with, for Treatment of Leukaemia and Arthritis, **591**
Use by, of the Glucides, **93**
*recurrentis*
Experiments with, **588**
Infection of, in Squirrels, Effect on, of Splenectomy, **592**
Titles of Unnoticed Papers, 599
Transmission by
Bugs, **86**
Lice, **586**
Experimental, **588** *bis*
Ticks, **90** *bis*, **91** *bis*, 585, 587
Treatment
Acetyl-amino-oxyphenylarsinate of diethylaminoethanol in Mice, **599**
Acetylarsan, **599**
Sod. Stovarsol, **597**, **598** *bis*
Spirocid, **780**
Viruses of, Pathogenic to Man, Origin of, **83** *bis*
Yellow Fever and ; A Comparison, **541**

**REVIEWS OF BOOKS, AND NOTICES,** 79–82, 167–70, 248–50, 324–30, 502, 583–4, 753–8, 840–2, 928–30, 1003–8
Annual Report of the Calcutta School of Tropical Medicine (1927), (Megaw), 755
Black Death, The. A Chronicle of the Plague (Nohl, trs. Clarke), 248–9
Contribution à l'Etude des Spirochétides (Pettit), 840
Documents Cliniques sur le Stovarsol (1922–27), 584
Filterable Viruses (Rivers, ed.), 929–30
Genesis, The, of Epidemics and the Natural History of Disease (Gill), 753–4
Gesundheits-Ratgeber für wärmere Zonen (Ziemann), 929
Health Instructions for Missionaries in the Tropics (Assoc. of Med. Officers of Missionary Societies), 584

**Reviews, &c.**—*cont.*
Hoofd v.d. Dermatol. afd. v.h. Ziekenhuis voor Scheepsen Tropische Ziekten te Rotterdam (Hermans), 841
Hospital for Trop. Dis. Lond. Work of (1927), 757
Host-Parasite Relations between Man and his Intestinal Protozoa (Hegner), 167
House-Fly, The, its Life History, Importance as a Disease Carrier and Practical Measures for its Suppression, 3rd. ed. (Austen), 842
Immunität bei Protozoen-infektionen (Schilling), 169
Indian Empire, The. Souvenir of the 7th Congress of the Far Eastern Association of Tropical Medicine. A Brief Description of the Chief Features of India and its Medical and Sanitary Problems, 329
Indian Materia Medica, The (Nadkarni), 502
Indian Medical Year (ed. Knowles), 755–6
Introduction, An, to Medical Protozoology with Chapters on the Spirochaetes and on Laboratory Methods (Knowles), 324
Kala Azar. A Handbook for Students and Practitioners (Napier), 756
Kitchener School of Medicine, Khartoum. 2nd Report. 1926–7 (Atkey), 1004–6
Leprosy Notes (B. Emp. Lep. Relief Assoc.), 1003–4
Malaria. Its Investigation and Control with Special Reference to Indian Conditions (Knowles & Senior-White), 583–4
Medical Guide, Issued on the Occasion of the 7th Biennial Conference, Peking, Jan. 27 to Feb. 2, 1928 (Nat. Med. Assoc. of China), 330
Monographie des cestodes de la famille Anoplocephalidae (Baer), 1003
Mosquito Surveys. A Handbook for Anti-Malarial and Anti-Mosquito Field Workers (MacGregor, foreword by Ross), 79–80
Mother India (Mayo), 754–5
Occurrence, The, of Malaria in Germany Now and in the Past, and the Distribution of Anopheles (Schuberg), 326
Plague, The, in Shakespeare's London (Wilson), 249–50
Practical Bacteriology, Blood Work, and Animal Parasitology (Stitt), 168
Quarterly Bibliography of Books on Medicine and Allied Sciences, 757-8
Radioscopic Diagnosis of Bilharziasis (Lotsy), 168–9
Recent Advances in Tropical Medicine (Rogers), 329

**Reviews, &c.**—*cont.*
Report on Malaria and Anopheline Mosquitoes in Ceylon (Carter), 80–2
Rockefeller Foundation. Annual Report 1927 (Vincent), 1006–8
Short Illustrated Guide, A, to the Anophelines of Tropical and South Africa (Evans), 80
Treatise, A, on Kala Azar (Bahadur), 928–9
Treatment, The, of Cataract and Some Other Common Ocular Affections (Smith, with Lister, Knapp & Russell Smith), 756–7.

**Scurvy,** in India, 365

**SLEEPING SICKNESS,** 331–62, 759–843
Chemotherapy
Chemoreceptor Theory
Interference Experiments
Biological Behaviour of Trypanosomes in, **348**
Sulphydril-Chemoreceptor, the, and **347**
Glossina
Blood in Alimentary Canal of, Recognition of, the Precipitin Test for, **770**
*palpalis*
Longevity of, Effect on, of Trypanosome Infections, 785
and *T. gambiense* Regions, Africa, **775**
League of Nations and
Expedition on, Share in, of Kleine, **802**
International Commission of, on Human Trypanosomiasis. Final Report of (1928), **759**
Trypanocidal Substance in Blood Serum of Haemophiliacs, **802**
Trypanolysis and its Mechanism, **798**
Trypanosomal
Meningo-encephalitis, Cerebral Filariasis in Infected Monkeys, **774**
Myocarditis, Described, **773**
Trypanosome Anaphylaxis, **798**
Trypanosomes
Action on, of
Alkaloids and Chemotherapeutic Products *in vitro*, **796**
Bayer 205, and of Germanin, Mechanism of, **344, 345**
B.R.68, A New Organic Arsenic Preparation, **346**
Sera of Mother and New-born Baby, Comparative Study of, **354**
Biological Behaviour of, in the Interference Experiments, **348**
Blepharoplastless Forms in Nature of *T. evansi* and *T. equiperdum*, **800**
Cytological Studies on, Particularly on Action of Various Drugs, and Röntgen and Ultra-Violet Rays, **801**
Entry of, into Cerebro-Spinal Matter, **774**

**Sleeping Sickness**—*cont.*
Trypanosomes—*cont.*
Infection(s) with
of Cerebrospinal Fluid by Lumbar Puncture, **787** *bis*
Susceptibility and Resistance to, **796**
in Lesions, Massive Localisations, and Cellular Invasions, **773**
Nucleus in, Division of, **361**
Parabasal Body in
Loss of, **800**
Structure of, **359**
Paravacuolar Formations of, **360**
Pathogenic Potency of Some, **771**
Polymorphic
Culture-Attempts with, **769**
of Man and Ruminants, Bionomics of, **759**
Posterior Nuclear Forms of, Percentages Compared, **768**
Prebasal Vacuole of, **359**
Species referred to, by Name
*brucei*
and *B. anthracis*, Antagonism between, Experiments on, **799**
Races of, Resistant to Antibodies, Creation of, Mechanism of, **352**
Recently Isolated
Blepharoplastless Individuals in Strains of, **358**
Nucleus in, Peculiarities of, **357**
*brucei* Group
Morphology of, Regulating Part Played in, by the Vertebrate Host, **786**
*congolense*
Infection with, Treatment by 2754 Hoechst, **341**
*cruzi* (*Schizotrypanum cruzi*)
Experimental Infection with, of Cat, **356**
Intracellular Stage of, in *Triatoma megista*, **355**
from Man, Experimental Paralysis caused by, **356**
Neurotropic Strain ; Studies on, **802**
*evansi* and *equiperdum*, Blepharoplastless Forms of, in Nature, **800**
*gambiense* and *G. palpalis* Areas : Epidemiology, **775**
*gambiense* and *rhodesiense*, Identity of, **785**
*lewisi* (Rat Trypanosome), Normal, and Previously Treated with Arsenophenyl-glycin, The Flea Passage of, **349**
*rhodesiense*
Attempts to Infect Baboons with, **768**
Infection of, in Man, Treated with "Bayer 205" or "Fourneau 309," **795**
Morphological Study of Isolated Strains, **768**
of Warm-Blooded Animals, Behaviour of, in the Body of Silkworms, **361**
Wassermann Reagin-Production by Means of, **495**

**Sleeping Sickness**—*cont.*
TRYPANOSOMIASES
ANIMAL
Blood Picture in Infected Animals, **801**
*Congolense* Infections
Treatment by 2754 Hoechst, **341**
Serum of Infected Animals, Physical Properties of, **353**
EXPERIMENTAL
Agglomeration, Studies on, **798**
Dosage, Relation of, to Course of Infection, **351**
Duration, Specificity, and Hereditary Transmission of Resistance to, Acquired after Cure with "Bayer 205," **796**
in Guinea-pigs, Crisis in, Mechanism of, **352**
Immunity Investigations, **798**
Relapses in, Treatment of, Cures after Repeated Relapses without Increasing Dose of Chemotherapeutic Agent, **343**
Susceptibility and Resistance to Trypanosome Infections, **351**
Temperature in Relation to Susceptibility of Host to Disease, **351**
Treatment by Azo Dyes, Containing Antimony, **347**
NAGANA
Influence on, of Bacteria and Killed Spirochaetes, **799**
in Mice
Trypanocidal Action in, of a New Organic Arsenic Preparation, B.R.68, **346**
in Rabbits, Meningeal Immunity in, **797**
HUMAN, AFRICAN, **335**
Case with Unusual Features, **336**
Diagnosis
Colloidal Benzoin Reaction in, **335**
Comparative Value in, of Formol-Gel Reaction and Auto-Agglutination of Red Cells, **334**
Gaté-Papacostas Reaction (Formol-Gel Test) in, **768**
Microscopic, **768**
Immunity, and Protective Action of Baboon Serum, **774**
Incidence
African Dependencies, **781**
Budama and Kavirondo, **779**
Budama, Kavirondo, the Upper Uele, and the Semliki River, General Remarks on, in the *T. gambiense* and *G. palpalis* Regions, based on Researches carried out in, **780**
Cameroons, Ex-German, 335
Congo
Belgian, 336 *sqq.*, **343**, 373
Alleged Foci in, 777 *sqq*
Reduction in, 374
Upper Uele Region, **776**

**Sleeping Sickness**—*cont.*
TRYPANOSOMIASES—*cont.*
HUMAN, AFRICAN—*cont.*
Incidence—*cont.*
Congo—*cont.*
French, 334, 335
French Equatorial Africa, Eight Years' Experience in, of a Sector of Prophylaxis, **782**
Germany, 335
Nigeria, Northern: Six Early Cases in Europeans, **788**
Semliki Valley **775**
Tanganyika Territory, 331, 336, 795
Ikoma. A New Focus at, **759**
European Case of Rhodesian Form, **788**
Uganda, 1926, **332**
Milk, Woman's, Alexin and Natural Anti-bodies in, Search for, **354**
Nervous Symptoms, Late, in, Pathogeny of, **350**
Parasite of (*see also* Trypanosomes), **785**
Pathologico-Anatomical and Serological Observations on, **771**
Prophylaxis
Comparison of Different Results, in Different Regions, with Different Methods, **342**
Control of, General Recommendations for, in African Dependencies, **781**
Sector of, in French Equatorial Africa, Eight Years' Experience of, **782**
Trials of Bayer 205 in Native [Congolese] Villages, **336**
Relative Importance in, of Man and Beast, **331**
*rhodesiense* Infection Treated with "Bayer 205," or "Fourneau 309," **795**
Skin Eruption, Early, in, **803**
Sleeping Sickness Mission in the Zaire and Congo Districts, P.E. Africa, Work of, **784**
Sleeping Sickness Survey in Kavirondo, **782**
Symptomatology, Minor, **788**
Symptoms, Late Nervous, Mechanism of, **797**
Treatment
Observations of, **779**
Recent Experience of, **803**
Various Methods
Bayer 205
or Fourneau 309, **795**
Intrathecal, **795**
Organic Arsenic Derivatives, Spirocid, **780**
Tryparsamide, **790** *oct.*
Ingested, **780**
Results
Immediate, **338**
Late, **337**
Tryponarsyl, **339**
270 Fourneau, **340** *bis*
2754 Hoechst, **341**

**Sleeping Sickness**—*cont.*
HUMAN, AMERICAN=CHAGAS'S DISEASE
Cardiac Form, **789**
Cardiac Rhythm in, Curious Disturbances of, **789** *ter*
Complement Fixation Test in, **356**
Heritability of, **354**
in Venezuela : Barinitas, **378**
Titles of Unnoticed Papers, 362

**Smallpox**
in Cochin China, 369, 370
Treatment: Pot. Permang., Intravenous, **403**

**Sodoku,** *see* **RAT-BITE FEVER**

**SPRUE,** 56–9, 685–91
Anaemia in, **687** *bis*
Atypical, **688**
Diet in, **690**
Liver in, Effects of, **690, 691**
Etiological Theories
Deficiency Disease, 370
Incidence
Geographical
China : Hankow, 691
Denmark, **57,** 685
India, 58, 365
Norway, 685
Philippine Islands, 691
Race : Indian Natives, **58**
Liver Function in, **688**
*Monilia psilosis*, Cultures of, Effects in Rabbit due to Feeding with, **690**
Non-Tropical, **685**
Pancreatic Function in, **686** *bis*
and Pernicious Anaemia, **56** *bis*, 59
Review of Recent Literature on, **685**
Treatment
Blood Transfusion, 59
Haemolysis Following, **689**
Infusion of Pomegranate Rind, **58**
Parathyroid, **58**
Yatren, 634

**Tuberculosis**
Incidence
Belgian Congo, 372
China : Yunnanfu ; Forms met, 368
Cochin China, 369, 370
Colombia, 379
East Africa : Wateita People, 373
Honduras, 380
India, British, 365
Allahabad ; Single Case, **402**
South Africa ; Surgical, in Bantus, 375
Venezuela, Barinitas, 378
Post-Malarial ; Saigon Prophylaxis, 370
Simulated by Undulant Fever, **507**
Suspected, *Monilia* in, **22**
Treatment by Gold, 996

**TYPHUS, TROPICAL AND ENDEMIC,** 51–2
Incidence
Annam ; Suggesting Rabies, **402**
China : Yunnanfu, 368

**Typhus, Tropical and Endemic**—*cont.*
Endemic
Incidence
Australia, **51**
India : Kumaon, **52**
Fevers Resembling, in Australia, **51, 52**
Old-Time, in Britain, **180, 581**

**UNDULANT AND ABORTUS FEVERS,** 40–50, 503–20
ABORTUS FEVER
Agglutination Test in : Value of "Abortoscope," **45**
Incidence
in Man, **42, 43** *ter*, **50** *bis*
Geographical
Germany, 43 *ter*
Baden, 43
U.S.A. : Pacific Coast, 42 *bis*
UNDULANT FEVER
Addison's Disease Syndrome occurring in, **506**
Case of, **42**
Clinical Aspect of, **41**
Clinical Forms, **506, 507**
Diagnosis
in Animals, **505**
Dermal Reaction of Burnet in, Value of, **508, 509**
Goats in relation to, *passim*, & *see under* Prophylaxis, *infra*
Haematology of, **507**
Incidence
Azerbaijan, **40,** 506
England, 510, **511**
France, 505
Indigenous, **508, 509**
Italy
Pavia, Province, First Recorded Cases, 41
Rhodesia, Southern, **44**
Serological Study of, **48**
Spain, **505**
Tunis, Spread of, Rôle in of Flies, **515**
U.S.A.: Researches into, **514**
Arizona, Phoenix (1922 Epidemic), **504,** 514
California : Los Angeles, 42
Michigan, **515**
Ohio : Cleveland, 508
New York ; Ithaca, **50**
in Man
Due to *Brucella abortus*, **511** *ter*, **512, 513** *bis*, 515
Relationship of, to Epidemic Abortion of Animals, **40**
Plea for Discontinuance of the term "Malta Fever," **504**
Problem for State and Municipal Laboratories, **503**
Prophylaxis
Vaccination of Goats, **516**
Treatment by Mercurochrome, **44** *bis*
Tuberculosis Simulated by, **507**
Unusual Cases, **510**
UNDULANT AND ABORTUS FEVERS
Bacteriology
*Brucella* Group
Agglutination Test for, 45

**Undulant and Abortus Fevers**—*cont.*
Bacteriology—*cont.*
*Brucella* Group—*cont.*
Differentiation of, Serological Tests in, **45, 46** *bis*, **47, 48** *ter*
*B. abortus*
and *B. melitensis* Comparative Research on, by Means of Agglutination Tests, **518** *bis*
Metabolism of, **517**
Observations on, 517
Infection of, in
Man, **42, 43** *ter*, **50** *bis*, **511** *ter*, **512, 513** *bis*, 514, 515
Milk from Fifty Herds, U.S.A., **50**
Milk from Cows showing no Agglutinins for, in their Blood Serum, **49**
Rhodesian and American Strains of, from Man, Serological Identity of, **45**
*B. melitensis* (*abortus*), Associated with Endocarditis, **508**
*b. melitensis, abortus* and *paramelitensis*, Relations of, **518**
Strains, Changes seen in, after Repeated Cultivation in Broth, **519**
Vaccine of, Goat Immunization by, **516**

**YAWS AND SYPHILIS**, 1–14, 655–64
Chancroidal Infections: Treatment by Antimony and Pot. Tartrate: Results, **14**
Correspondence, 842
GANGLION
as Possible Sequela of Yaws: Lagos, **11**
GANGOSA
Incidence
Formosa, 3
Liberian Hinterland, 375, **656**
Rhinopharyngitis mutilans: D.E.I., **4**
JUXTA-ARTICULAR NODULES
Etiology and Literature, **8**
Signs; Pathology, **661**
General Survey of, **10**
Incidence
Africa, North: Etiology, **10**
Brazil, Peculiar Type, **10**
Central Asia, in Women, **8**
Cyrenaiaca, in a Syphilitic, **8**
Liberian Hinterland, 375
Priority of Description, **8** *bis*
SYPHILIS
GENERAL PARALYSIS OF THE INSANE
Incidence: India, 364, 365
Treatment by Inoculation of the Relapsing Fever Spirillum, **998**
Yaws Successfully Transmitted to, **7**
Incidence
Buganda
Signs and Symptoms in Late, **11**
Cochin China, 370
Honduras, 380
India, 364, 365
Senegal
Face-destruction, and Cure by 914, **13**
South Africa, in Bantus, 375
Venezuela: Barinitas, 378

**Yaws and Syphilis**—*cont.*
SYPHILIS—*cont.*
Llama-susceptibility to, **13**
Primary, Pyrexia in, **663**
TABES DORSALIS
Incidence
China, in Chinese, **663**
Dutch East Indies
in Sundanese, **12**
TREPONEMATOSIS, Yaws and Syphilis considered as Identical with, **1**
ULCERS, Treponematous, Treatment of, by Bismuto-Yatren, **664**
Titles of Unnoticed Papers, 14, 664
YAWS, **665** *bis*
Book on, Reviewed, **841**
Cerebral Symptoms in, in an African, **658**
and Goundou, Relation of, **10**
History of, Some Reflections on, **175**
Immunity in, **662**
Incidence
Africa, East, an Economic Problem, **4**
Ashanti, in Natives, **5**
Belgian Congo, 655
Katanga, 660 *bis*
Caroline and Marianne Islands; Histology, **2**
Colombia, **656**
Dutch East Indies
(Rhinotrophia mutilans, **4**
Sumatra, **655**
Formosa: Experiments on Monkeys, **3**
Haiti, 1, 6
India, 364, 365
Assam: Origin, **2**
Ivory Coast, 373, 660
Kenya, 656
Wateita People, 373
Liberian Hinterland, 375, **656**
Philippine Islands, **567**
Samoa, 655
Tanganyika Territory, **658** *quat.*
Letter on, from J. F. Corson, **842**
Timor, **2**
Togo: Lomé, 4
Kahn Test and, **7, 663**
Noma in, after Lip Lesions, **4**
Prophylaxis on the Tana, **656**
and the Reactions of
Kahn, **7, 663**
Wassermann, **6**
Reinfection: Immunological Study, **7**
Sera of, Experiments with, and the Kahn Precipitation Test, **7**
Terminology, Local, of Certain Manifestations of, **657**
Tertiary
Changes, Grave, in Bones and Joints in, **657**
in Nose and Throat; Philippines, **657**
Transmission of
to Case of G.P.I., 7
Immunologic Study, **7**
Treatment
Bismuth, **660**
Salicylate and Guaiacol, **6**
Subnitrate, **660**
Bismuto-Yatren, **5, 6**
Organic Arsenic Derivatives, **659**

**Yaws and Syphilis**—*cont.*
YAWS—*cont.*
Treatment—*cont.*
Potassium and Sodium Tetrabismuth Tartrates : Preparation of, **661**
Stovarsol, **4, 5** *ter*, **660**
Treparsol, **660**
YAWS AND SYPHILIS, **655**
Experimental Work on, **659**
Incidence
Cuba, in Haitian Labourers, **1**
French Colonies, 3
Haiti, in Rural Population, **1**
Sierra Leone, 4
in Rodents, **659**
Suppression of, in Villages, **3**
Tertiary, Differential Diagnosis of, **658**
Treatment by Arsenobenzol Compounds Toxic Effects, **14**
VENEREAL DISEASE
Forms not specified, in
Colombia, 379
French West African Natives, 373
Fourth, **664**

**YELLOW FEVER,** 111–14, 537–49, 843–55
*Aedes aegypti*, Leptospirocidal Power of Extracts of, **850**
and its Relations with *Leptospira icteroides*, **849**
African, Liver in, **852**
Beit Memorial Trustees, Annual Report of, **850**
Blood in, Antibodies against Spirochaetes Absent from, **850**
Blood and Urine from, Inoculation of, to Guineapigs, Dakar, **545**
Causative Agent, **853**
Conference on, at Dakar : Results, **843** *bis*, 848
Conquest of, **172**
Romantic Side of, **580**
Diagnosis
Anatomical, **543**
Histological, **853**
Etiology, **853**
New Work on, **547**
Experimental, in *Macacus Rhesus*, and in Man, Comparative Pathology of, **853**
Immunity to
Moroccan, **547**
Without Previous Symptoms of Illness in, **547**

**Yellow Fever**—*cont.*
Incidence
Brazil, **852**
Bahia, **112**
Belgian Congo, **846**
Gold Coast
Accra, 1927 Epidemic, **540**
Liberia (1925 & 1927), **846**
West Africa, 843
Endemicity of, **111** *bis*
Jaundice, Liver, and Spleen in, **112** *bis*
British, **845, 846, 848**
French, **546, 547,** 843, **844** *bis*, **845**
Dahomey, 846
Dakar, **847** *bis*
Sierra Leone : Case Details, **112**
World-distribution, **111**
Incubation Period of, in Mosquito, **848**
*Leptospira icterohaemorrhagiae* and *L. icteroides*, Relationship of, **543, 544** *ter*, **545** *bis*, **547, 548**
*Leptospira icteroides*, Survival of, in Various Environments, **545**
Liver in, and in Weil's Disease, Pathological Anatomy of, **543**
Myocardial Degenerations in, **855**
Phosphorus Poisoning Mis-diagnosed as, **542**
Possibility of, in D.E.I., **549** *bis*
Problem of, **546**
Prophylaxis, **547, 548, 853**
Anti-Yellow Fever Serum, **851**
Brazilian, **548**
[Iodine in], **548**
Modern, **111**
Moroccan, **547**
Vaccine for, **539**
Noguchi's, **549** *bis*
on West Coast of Africa, **547**
Relapsing Fever and, A Comparison, **541**
*Stegomyia* Index and, **848**
Titles of Unnoticed Papers, 549, 855
Transmission of
to *Macacus rhesus*, **537, 538** *bis*
by Mosquitoes other than *Aëdes aegypti*, **848**
Virus of, **850**
Preservation of, **539**
Susceptibility to, Relative, of Monkeys and Man, **851** *bis*
" West African," **112**

January, 1929.]

## BUREAU OF HYGIENE AND TROPICAL DISEASES.

### Scientific Periodicals

For the convenience of readers the titles of some journals taken by the London School of Hygiene and Tropical Medicine are incorporated in the list and are distinguished by an asterisk. These journals, though not the Bureau's property, are available for reference in the Joint Library of the Bureau and the School.

Note.—The date and volume number following the title indicate the earliest volume of the series which the Library possesses. Dashes after the date and volume number indicate that the intervening parts (unless otherwise stated) are complete to the date of publication of this list.

*Series which are complete from the commencement are italicised.*

### EUROPE.

**Great Britain.**

| | | | | |
|---|---|---|---|---|
| **Annals of Applied Biology (London)* ... .., ... | 1914— | Vol. | 1— | |
| **Annals of Eugenics (Cambridge)* ... ... ... | 1926— | Vol. | 1— | |
| *Annals of the Pickett-Thomson Research Laboratory (London)* ... ... ... ... ... ... | 1924— | Vol. | 1— | |
| *Annals of Tropical Medicine & Parasitology (Liverpool)* ... ... ... ... ... ... | 1907— | Vol. | 1— | |
| *Archives of Disease in Childhood (London)* ... ... | 1926— | Vol. | 1— | |
| **Archives of Medical Hydrology (London)* ... ... | 1922— | Vol. | 1— | |
| Better Health (London) ... ... ... ... | 1927— | Vol. | 1— | No. 2— |
| *Biochemical Journal (London) ... ... ... | 1923— | Vol. | 17— | |
| British Dental Journal (London) ... ... ... | 1926— | Vol | 47.— | |
| British Journal of Actinotherapy (London)... ... | 1927— | Vol. | 2— | No. 4— |
| [British Journal of Dermatology & Syphilis (London) | 1925— | Vol. | 37— | No. 7— Vol. 40. |
| *British Journal of Experimental Pathology (London)* | 1920— | Vol. | 1— | |
| British Journal of Inebriety (Alcoholism & Drug Addiction) (London) ... ... ... ... | 1926— | Vol. | 23— | No. 3— |
| [British Journal of Ophthalmology (London) ... | 1917–23 | Vols. | 1–7] | |
| British Journal of Tuberculosis (London) ... ... | 1925— | Vol. | 19— | No. 3— |
| **British Journal of Venereal Diseases (London)* ... | 1925— | Vol. | 1— | |
| British Medical Journal (London) ... ... ... | 1876— | | | |
| *Bulletin of Entomological Research (London)* ... | 1910— | Vol. | 1— | |
| *Bulletin of Hygiene (London)* ... ... ... | 1926— | Vol. | 1— | |
| *Bulletin of the International Institute of Sanitary & Municipal Engineers (London)* ... ... ... | 1925— | | | No. 1— |
| *Cancer Review (Bristol)* ... ... ... ... | 1926— | Vol. | 1— | |
| Domestic Engineering, Heat & Ventilation (London) | 1926— | Vol. | 46 | No. 2— |
| *Ectoparasites (London)* ... ... ... ... | 1921. | Vol. | 1. | |
| Edinburgh Medical Journal (Edinburgh) ... ... | 1908— | (New Ser.) | | Vol 1— |
| Eugenics Review (London) ... ... ... ... | 1926— | Vol. | 18— | |
| *Franco-British Medical Review (London) ... ... | 1927— | Vol. | 4— | |
| Garden Cities and Town Planning (London) ... | 1927— | Dec.— | | |
| **Glasgow Health Bulletin* ... ... ... ... | 1924— | Vol. | 1— | |
| Glasgow Medical Journal (Glasgow) ... ... ... | 1909— | Vol. | 71— | |
| Health and Empire (London) ... ... ... | 1928— | Vol. | 3— | No. 1— |
| Illuminating Engineer (London) ... ... ... | 1926— | Vol. | 19— | |
| Industrial Welfare (London) ... ... ... | 1926— | Vol. | 8— | |
| *Journal of the African Society (London) ... ... | 1925— | Vol. | 25— | |
| Journal of Comparative Pathology & Therapeutics (London) ... ... ... ... ... ... | 1908— | Vol. | 21— | |
| *Journal of Genetics (London) ... ... ... | 1927— | Vol. | 19— | |
| *Journal of Helminthology (London)* ... ... ... | 1923— | Vol. | 1— | |
| *Journal of Hygiene (Cambridge)* ... ... ... | 1901— | Vol. | 1— | |
| Journal of the Institution of Sanitary Engineers (London) ... ... ... ... ... ... | 1925— | Vol. | 29— | Pt. 4— |
| *Journal of the London School of Tropical Medicine (London)* ... ... ... ... ... ... | 1911–13 | Vols. | 1–2 | |

GREAT BRITAIN—*cont.*

| | | | | |
|---|---|---|---|---|
| Journal of Mental Science (London) ... ... | 1926— | Vol. | 72— | |
| Journal of the Ministry of Agriculture (London) ... | 1913— | Vol. | 20— | |
| Journal of the National Institute of Industrial Psychology (London) ... ... ... ... | 1925— | Vol. | 2 | No. 5— |
| Journal of Obstetrics and Gynaecology of the British Empire (Manchester) ... ... ... | 1927— | Vol. | 34— | |
| *Journal of Pathology & Bacteriology (Cambridge and Edinburgh)* ... ... ... ... ... ... | 1892— | Vol. | 1— | |
| *Journal of the Royal Army Medical Corps (London)* | 1903— | Vol. | 1— | |
| *Journal of the Royal Naval Medical Service (London)* | 1915— | Vol. | 1— | |
| Journal of the Royal Sanitary Institute (London)... | 1922— | Vol. | 42— | |
| Journal of School Hygiene and Physical Education (Birmingham) ... ... ... ... ... | 1925— | Vol. | 15 | No. 52— |
| Journal of State Medicine (London) ... ... | 1913— | Vol. | 21— | |
| Journal of the Town Planning Institute (London)... | 1925— | Vol. | 12— | |
| *Journal of Tropical Medicine & Hygiene (London)*... | 1898— | Vol. | 1— | |
| *Kala Azar Bulletin (London)* ... ... ... | 1911–12 | | | Nos. 1–3 |
| *Laboratory Journal (Weybridge) ... ... ... | 1924— | Vol. | 6— | |
| Lancet (London) ... ... ... ... ... | 1824–42 | [Incomplete] | | 1843 - |
| *Lister Institute. Collected Papers (London)* ... | 1904— | Vol. | 1— | |
| *London School of Tropical Medicine. Collected Papers—* | | | | |
| (*a*) *Clinical & Pathological Papers* ... ... | 1922— | Part | 1— | |
| (*b*) *Papers from the Department of Helminthology* ... ... ... ... ... | 1922— | Part | 1— | |
| *Medical Annual (Bristol) ... ... ... ... | 1905 | Vol. | 23 | |
| | 1914 | Vol. | 32 | |
| | 1921— | Vol. | 39— | |
| Medical Officer (London) ... ... ... ... | 1925— | Vol. | 34 | |
| *Medical Science. Abstracts and Reviews (London)*... | 1919–25 | Vols. | 1–12 | |
| Nature (London) ... ... ... ... ... | 1921— | Vol. | 108— | |
| *Parasitology (Cambridge)* ... ... ... ... | 1908— | Vol. | 1— | |
| [*Philosophical Transactions of the Royal Society (Series B) (London) ... ... ... ... ... | 1900–18 | Vols. | 193–208] | |
| [Physiological Abstracts (London) ... ... ... | 1922–23 | Vol. | 7 | |
| | 1926–27 | Vol. | 11.] | |
| **Post Graduate Medical Journal (London)* ... ... | 1925— | Vol. | 1— | |
| Prescriber (Edinburgh) ... ... ... ... | 1926— | Vol. | 20— | |
| Proceedings of the Royal Society, Series B. (London) | 1905— | Vol. | 76— | |
| *Protozoology. Supplement to the Journal of Helminthology (London)* ... ... ... ... | 1925— | | | No. 1— |
| Proceedings of the Royal Society of Medicine (London) ... ... ... ... ... ... | 1921— | Vol. | 15— | |
| Public Health (London) ... ... ... ... | 1908— | Vol. | 22— | |
| *Quarterly Journal of Pharmacy (London)* ... ... | 1928— | Vol. | 1— | |
| *Review of Applied Entomology. Series A.: Agricultural. Series B: Medical & Veterinary (London)* ... ... ... ... ... ... | 1913— | Vol. | 1— | |
| *Review of Applied Mycology (Kew)* ... ... ... | 1922— | Vol. | 1— | |
| Scottish Journal of Agriculture (Edinburgh) ... | 1926— | Vol. | 9— | |
| *Sleeping Sickness Bulletin (London)* ... ... | 1908–12 | Vols. | 1–4 | |
| Surveyor & Municipal & County Engineer (London) | 1922— | Vol. | 62— | |
| *Transactions of the Royal Society of Tropical Medicine & Hygiene (London)* ... ... ... | 1907— | Vol. | 1— | |
| *Tropical Diseases Bulletin (London)* ... ... ... | 1912— | Vol. | 1— | |
| *Tropical Veterinary Bulletin (London)* ... ... | 1913— | Vol. | 1— | |
| Tubercle (London) ... ... ... ... ... | 1925— | Vol. | 7— | |
| United Empire (London) ... ... ... ... | 1926— | Vol. | 17— | |
| Veterinary Journal (London) ... ... ... | 1909— | Vol. | 65— | |
| [Veterinary News (London) ... ... ... ... | 1910–21 | Vol. | 7–18] | |
| Veterinary Record (London) ... ... ... | 1912— | Vol. | 25— | |
| *Yellow Fever Bureau Bulletin (Liverpool)* ... ... | 1911–15 | Vols | 1–3 | |
| *Zoological Record (London) ... ... ... ... | 1920— | Vol. | 57— | |

IRELAND.

| | | | | |
|---|---|---|---|---|
| [Department of Agriculture & Technical Instruction for Ireland Journal (Dublin) ... ... ... | 1901–23 | Vol. | 2–23] | |
| Irish Journal of Medical Science (Dublin) ... ... | 1926— | 6 ser. | | No. 1— |

AUSTRIA.

*Mitteilungen des Volksgesundheitsamtes im Bundesministerium für soziale Verwaltung* (*Vienna*) ... 1920— No. 1—
*Seuchenbekämpfung* (*Vienna*) ... ... ... 1924— Vol. 1—
Wiener Klinische Wochenschrift (Vienna) ... ... 1913— Vol. 26—
[Wiener Medizinische Wochenschrift (Vienna) ... 1927–28 Vol. 77–78]

BELGIUM.

[Annales de Médecine Vétérinaire (Ixelles-Brussels) 1913–19 Vol. 62–64]
*Annales de la Société Belge de Médecine Tropicale* (*Brussels*) ... ... ... ... ... ... 1920— Vol. 1—
Archives Médicales Belges (Brussels) ... ... 1917— Vol. 70—
Bruxelles-Médical (Brussels) ... ... ... ... 1922— Vol. 3—
[Bulletin de l'Académie Royale de Médecine de Belgique (Brussels) ... ... ... ... ... 1908–19 (4 ser.) Vol. 22–29]
Bulletin Agricole du Congo Belge (Brussels) ... 1915— Vol. 6—
Bulletin International de la Protection de l'Enfance (Brussels) ... ... ... ... ... ... 1923— No. 18—
*Bulletin mensuel de statistique démographique et médicale . . . de la Ville de Bruxelles ... ... 1928— Vol. 59—
[Etudes de Biologie Agricole (London) ... ... 1915–16 Nos. 1, 2, 4]

CZECHO-SLOVAKIA.

Casopis pro Zdravotnictvo (Bratislava) ... ... 1928— Vol. 19—
Prager Archiv für Tiermedizin und vergleichende Pathologie, Teil A (Prague) ... ... ... 1927— Vol. 7—

DENMARK.

Acta Pathologica et Microbiologica Scandinavica (Copenhagen) ... ... ... ... ... 1927— Vol. 4—
Hospitalstidende (Copenhagen) ... ... ... 1921— Vol. 64—

FRANCE.

Annales d'Hygiène Publique, Industrielle et Sociale (Paris) ... ... ... ... ... ... 1923— (New Ser.) Vol. 1—
Annales de l'Institut Pasteur (Paris) ... ... 1897— Vol. 11—
*Annales de Médecine (Paris) ... ... ... ... 1920— Vol. 7—
*Annales de Médecine et de Pharmacie Coloniales* [formerly *Annales d'Hygiène et de Médecine Coloniales* (*Paris*)] ... ... ... ... 1898— Vol. 1—
*Annales de Parasitologie Humaine et Comparée* (*Paris*) ... ... ... ... ... ... 1923— Vol. 1—
Archives de Médecine et de Pharmacie Militaire (Paris) ... ... ... ... ... ... 1914— Vol. 63—
Archives de Médecine et Pharmacie Navales (Paris) 1907— Vol. 88—
*Archives de Parasitologie* (*Paris*) ... ... ... 1898–1919 Vols. 1–16
*Archives Roumaines de Pathologie Expérimentale et de Microbiologie* (*Paris*) ... ... ... ... 1928— Vol. 1—
*Bulletin de l'Académie de Médecine (Paris) ... 1917–22 Vols. 77–88
1923— Vol. 90—
*Bulletin de l'Académie Vétérinaire de France* (*Paris*) 1928— Vol. 1—
*Bulletin de l'Institut Pasteur* (*Paris*) ... ... 1903— Vol. 1—
*Bulletin de l'Office International d'Hygiène Publique* (*Paris*) ... ... ... ... ... ... 1909— Vol. 1—
*Bulletin de la Société de Pathologie Exotique* (*Paris*) 1908— Vol. 1—
Bulletin de la Société Scientifique d'Hygiène Alimentaire (Paris) ... ... ... ... ... 1927— Vol. 15—
Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris (Paris) ... ... ... ... ... 1913— (3 ser.) Vol. 29—
[Caducée (Paris) ... ... ... ... ... 1913–19 Vol. 13–19]
*Comptes Rendus de l'Académie des Sciences (Paris) 1910— Vol. 150—
Comptes Rendus de la Société de Biologie (Paris)... 1903— Vol. 55—
Gazette des Hôpitaux Civils et Militaires (Paris) ... 1913— [Vol. 86 incomplete]
L'Hygiène par l'exemple (Paris) ... ... ... 1928— Vol. 7— No. 1—
Journal de Médecine de Bordeaux et de la Région du Sud-Ouest (Bordeaux) ... ... ... ... 1923— Vol. 95—
*Journal de physiologie et de pathologie générale (Paris) ... ... ... ... ... ... 1919— Vol. 18—

FRANCE—*cont.*

*Medical Bulletin* (*Paris*), see *War Medecine.*
Le Mouvement Sanitaire (Paris) ... ... ... 1927— Vol. 3— No. 38—
Presse Médicale (Paris) ... ... ... ... 1915. Vol. 23.
1917— Vol. 25—

Recueil de Médecine Vétérinaire de l'Ecole d'Alfort (Paris) ... ... ... (1909 Vol. 86.) 1913— Vol. 90—
*Recueil de Médecine Vétérinaire Exotique de l'Ecole d'Alfort* (*Paris*) ... ... ... ... ... 1928— Vol. 1—
Revue d'Hygiène et de Médecine Préventive (Paris) 1925— Vol. 47—
*Revue de Médecine et d'Hygiène Tropicales* (*Paris*)... 1904— Vol. 1—
Revue de Pathologie Comparée et d'Hygiène Générale (Paris) ... ... ... ... ... 1917— Vol. 17—
*Revue International du Trachome* (*Paris*) ... ... 1924— Vol. 1—
Revue Générale de Médecine Vétérinaire (Toulouse) 1913— Vol. 21—
*Revue Pratique des Maladies des Pays Chauds* (*Paris*) 1922— Vol. 1—
Revue Vétérinaire et Journal de Médecine Vétérinaire et de Zootechnic (Toulouse) ... ... ... 1913— Vol. 38—
[*War Medecine* (Paris) formerly *Medical Bulletin* ... 1917–18 Vol. 1–2]
World's Health (Paris) ... ... ... ... 1926– Vol. 7, No. 4—

GERMANY.

Arbeiten aus dem Reichsgesundheitsamte (Berlin)... 1913— Vol. 43—
Archiv für Dermatologie und Syphilis (Berlin) ... 1926— Vol. 152—
[Archiv für experimentelle Pathologie und Pharmakologie (Leipzig) ... ... ... ... ... 1926–27 Vols. 118–121]
Archiv für Hygiene (Munich & Berlin) ... ... 1927— Vol. 98—
*Archiv für Protistenkunde* (*Jena*) ... ... ... 1902— Vol. 1—
*Archiv für Schiffs- und Tropen-Hygiene* [*& Beihefte*] (*Leipzig*) ... ... ... ... ... ... 1897— Vol. 1—
Archiv für soziale Hygiene und Demographie (Berlin–Charlottenburg) ... ... ... ... 1925— n.s. Vol. 1—
Archiv für Wissenschaftliche und Praktische Tierheilkunde (Berlin) ... ... ... ... ... 1912— Vol. 39—
Berliner Tierärztliche Wochenschrift ... ... 1914— Vol. 30— [Incomplete]
[Biochemische Zeitschrift (Berlin) ... ... ... 1926–27 Vol. 179–182]
**Centralblatt für Bakteriologie* (*Jena*)
*I. Abteilung. Originale* ... ... 1887— Vol. 1—
**Do.* *I. *Abteilung. Referate* ... 1902— Vol. 31—
**Do.* 2. *Abteilung* ... ... ... 1895— Vol. 1—
Deutsche Medizinische Wochenschrift (Berlin) ... 1909— Vol. 35—
Deutsche Tierärztliche Wochenschrift (Hanover) ... 1924— Vol. 32—
**Ergebnisse der Hygiene, Bakteriologie* ... ... 1914— Vol. 1—
[Gesundheits-Ingenieur (Munich) ... ... ... 1927— Vol. 50—]
Klinische Wochenschrift (Berlin) ... ... ... 1924— Vol. 3—
[Lepra (Leipzig) ... ... ... ... ... 1913–17 Vol. 14–15]
**Medizinalstatistische Nachrichten . . . vom Preussischen Stat. Landesamt* (*Berlin*) ... ... ... 1909— Vol. 1—
Medizinische Klinik (Berlin) ... ... ... ... 1924— Vol. 20—
Mitteilungen d. Tierseuchenstelle d. Thüringischen Landesanstalt f. Viehversicherung ... ... 1922— Vol. 2—
*Mitteilungen aus dem Zoologischen Museum in Berlin 1910— Vol. 5—
Münchener Medizinische Wochenschritt (Munich)... 1914— Vol. 61—
*Reichsgesundheitsblatt* (*Berlin*) ... ... ... 1926— Vol. 1—
*Statistische Monatsberichte der Stadt Leipzig ... 1927— Vol. 19—
Strahlentherapie (Berlin) ... ... ... ... 1926— Vol. 24—27]
*Therapeutische Monatshefte für Veterinärmedizin* (*Hoechst*) ... ... ... ... ... ... 1927— Vol. 1—
**Zeitschrift für angewandte Entomologie* (*Berlin*) ... 1914— Vol. 1—
Zeitschrift tür Fleisch- und Milch-hygiene (Berlin)... 1926— Vol. 37—
Zeitschrift für Hygiene und Infektionskrankheiten (Leipzig) ... ... ... ... ... ... 1912— Vol. 72—
Zeitschrift für Infektionskrankheiten parasitäre Krankheiten und Hygiene der Haustiere (Berlin) 1917–20 Vol. 18–20
1922— Vol. 24—
Zeitschrift für Immunitätsforschung und Experimentelle Therapie (Jena) Originale ... ... 1908— Vol. 1—
**Zeitschrift für Parasitenkunde* (*Berlin*) ... ... 1928— Vol. 1—

GERMANY—*cont.*

| | | | |
|---|---|---|---|
| Zeitschrift für Tuberculose (Leipzig) ... ... ... | 1927— | Vol. | 47— |
| Zentralblatt für die gesamte Hygiene und ihre Grenzgebiete (Berlin) ... ... ... ... | 1926— | Vol. | 13—16] |
| Zentralblatt für Gewerbehygiene und Unfallverhütung (neue folge) (Berlin) ... ... ... ... | 1927— | Vol. | 4— |

GREECE.

| | | | |
|---|---|---|---|
| *Archives de l'Institut Pasteur Hellenique* (*Athens*) ... | 1923— | Vol. | 1— |
| Grèce Médicale & Ἰατρικὴ Πρόοδος (Athens) ... ... | 1912— | Vol. | 14— [Incomplete |

HOLLAND.

| | | | |
|---|---|---|---|
| *Acta Leidensia, Scholae Medicinae Tropicae* (*Leyden*) | 1926— | Vol. | 1— |
| *Folia Microbiologica* (*Delft*) ... ... ... ... | 1912–19 | Vols. | 1–4 |
| Janus (Leyden) ... ... ... ... ... | 1909— | Vol. | 14— |
| *Mededeelingen van het Kolonial Instituut, Afdeeling Tropische Hygiene* (*Amsterdam*) ... ... ... | 1914— | Vol. | 1— |
| Nederlandsch Tijdschrift voor Geneeskunde (Amsterdam) ... ... ... ... ... | 1924— | Vol. | 68— |
| Nederlandsch Tijdschrift voor Hygiene, Microbiologie en Serologie (Leyden) ... ... ... ... | 1927— | Vol. | 2— |
| Tijdschrift voor Diergeneeskunde (Utrecht) ... | 1920— | Vols. | 47— |
| [Tijdschrift voor Vergelijkende Geneeskunde, enz. (Leyden) ... ... ... ... ... ... | 1922–25 | Vols. | 7–11] |

HUNGARY.

| | | | |
|---|---|---|---|
| *Magyar orvosi archivum (Budapest) ... ... ... | 1925— | Vol. | 26— |
| *Orvosi hetilap (Budapest) ... ... ... ... | 1925— | Vol. | 69— |

ITALY.

| | | | |
|---|---|---|---|
| Annali d'Igiene [formerly Annali d'Igiene Sperimentale] (Rome) ... ... ... ... ... ... | 1912— | Vol. | 22— |
| Annali di Medicina Navale e Coloniale (Rome) ... | 1908— | Anno | 14— |
| Archivo di Farmacologia Sperimentale e Scienze affini. (Rome) ... ... ... ... ... | 1918— | Vol. | 26— |
| [Annali della Stazione Sperimentale per le Malattie Infettive del Bestiame (Naples) ... ... ... | 1911–13 | Vol. | 1–2] |
| Biochimica e Terapia Sperimentale (Milan) ... ... | 1926— | Vol. | 13— |
| Bollettino dell' Instituto Sieroterapico Milanese (Milan) ... ... ... ... ... ... | 1917— | Vol. | 1— |
| *Bollettino mensile di statistica dell' Istituto centrale di statistica del Regno d'Italia (Rome) ... | 1928— | Vol. | 3— No. 7— |
| Bollettino della Societa Medico Chirurgica di Modena (Modena) ... ... ... ... ... | 1914— | Vol. | 16— [Incomplete] |
| Clinica Veterinaria (Milan) ... ... ... ... | 1913— | Vol. | 36— |
| **Giornale di batteriologia e immunologia* (*Turin*) ... | 1926— | Vol. | 1 - |
| *Giornale di Clinica Medica* (*Parma*) ... ... | 1920— | Vol. | 1— |
| [Giornale di Medicina Militaire (Rome) ... ... | 1914–22 | Vols. | 62–70] |
| Giornale della R. Accademia di Medicina di Torino (Turin) ... ... ... ... ... ... | 1912— | Vol. | 75— |
| [Giornale della Reale Società Italiana d'Igiene (Milan) ... ... ... ... ... ... | 1913–19 | Vol. | 35–41] [Incomplete |
| Haematologica (Pavia) ... ... ... ... | 1922— | Vol. | 3— |
| International Review of Agriculture (Rome) ... | 1920— | Vol. | 11— |
| [Malaria e Malattie dei Paesi Caldi (Rome) ... ... | 1910–17 | Vols. | 1–8 [Vols. 1–3 incomplete] |
| [Malariologia [formerly Propaganda Anti-malarica] (Naples) ... ... ... ... ... ... | 1911–21 | Vol. | 4–14] |
| *Maternita ed Infanzia* (*Rome*) ... ... ... | 1926— | Vol. | 1— |
| Moderno Zooiatro (Bologna) | | | |
| Parte professionale ... ... ... | 1913— | Vol. | 2— |
| Parte scientifica ... ... ... | 1913— | Vol. | 2— |
| Nipiologia (Naples) ... ... ... ... ... | 1919— | Vol. | 5— |
| Nuovo Ercolani (Milan) ... ... ... ... | 1913— | Vol. | 18— |
| Nuova Veterinaria (Bologna) ... ... ... | 1923— | Vol. | 1— |
| *Pathologica* (*Genoa*) ... ... ... ... ... | 1908— | Vol. | 1— |

ITALY—*cont.*

| | | | |
|---|---|---|---|
| Pediatria (Naples) ... ... ... ... ... | 1913— | Vol. | 21— (Ser. 2. Vol. 77— |
| Policlinico (Rome) ... Sez. medica ... ... | 1912— | Vol. | 19— |
| Sez. pratica ... ... | 1912— | Vol. | 19— |
| [Problemi della Nutrizione (Rome) ... ... ... | 1924–26 | Vols. | 1–3] |
| Riforma Medica (Naples) ... ... ... ... | 1924— | Vol. | 40— |
| Rivista Critica di Clinica Medica (Florence) ... | 1913— | Vol. | 14— |
| Rivista di Malariologia (Rome) ... ... ... | 1926— | Vol. | 5— |
| *Rivista di Patologia e Clinica della Tuberculosi* (*Bologna*) ... ... ... ... ... ... | 1927— | Vol. | 1— |
| [Rivista Pellagrologica Italiana (Florence) ... | 1913–23 | Vol. | 13–23 [Incomplete] |
| Sperimentale (Florence) ... ... ... ... | 1913— | Vol. | 67— |
| Terapia (Milan) Parte pratica ... ... ... | 1924— | Vol. | 14— |

NORWAY.

| | | | |
|---|---|---|---|
| Norsk Magasin for Laegevidenskapen (Oslo) ... | 1921— | Vol. | 82— |

POLAND.

| | | | |
|---|---|---|---|
| *Medycyna Dóswiadczalna i społeczna* [formerly *Przeglad Epidemjologiczny*] (*Warsaw*) ... ... | 1920— | Vol. | 1— |

PORTUGAL.

| | | | |
|---|---|---|---|
| *Arquivos de Higiene e Patologia Exoticas* (*Lisbon*) [formerly Archivos, &c.] ... ... ... ... | 1905— | Vol. | 1— |
| *Archivos do Instituto Bacteriologico Camara-Pestana* (*Lisbon*) ... ... ... ... ... ... | 1906— | Vol. | 1— |
| *Bulletin de la Société Portugaise des Sciences Naturelles* (*Lisbon*) ... ... ... ... ... | 1907— | Vol. | 1— |
| [Medicina Contemporanea (Lisbon) .... ... ... | 1913–21 | Vol. | 31–39] |

ROUMANIA.

| | | | |
|---|---|---|---|
| Archivia Veterinara (Bucarest) ... ... ... | 1920— | Vol. | 14— |
| *Bulletins et Mémoires de la Société Médicale des Hôpitaux de Bucarest* ... ... ... ... | 1919— | Vol. | 1— |

RUSSIA.

| | | | |
|---|---|---|---|
| *Arbeiten aus den Microbiologischen Institut des Volksunterrichtscomissariats* (*Moscow*) ... ... ... | 1925— | Vol. | 1— |
| Archives Russes de Protistologie (Moscow) ... | 1924— | Vol. | 3— |
| Archives des Sciences Biologiques (Leningrad) ... | 1923— | Vol. | 23— |
| *Dnyepropetrovskii meditsinskii zhurnal (Dnyepropetrovsk) ... ... ... ... ... ... | 1926— | Vol. | 5— |
| **Omsky medizynsky journal* (*Omsk*) ... ... ... | 1926— | Vol. | 1— |
| Pensée Médicale d'Usbekistane (formerly Journal Médical de l'Asie Centrale) (Taschkent) ... ... | 1926— | Vol. | 5— |
| *Revue de Microbiologie et d'Epidemiologie* (*Saratov*)... | 1922— | Vol. | 1— |
| *Russian Journal of Tropical Medicine* (*Moscow*) ... | 1923— | No. | 1— |
| *Travaux de l'Institut de Microbiologie et d'Hygiène d'Azerbaidjan* (*Baku*) ... ... ... ... | 1924— | No. | 1— |
| Travaux de la Société des Naturalistes de Leningrad. Section de Zoologie et de Physiologie (Leningrad) | 1925— | Vol. | 55— |

SPAIN.

| | | | |
|---|---|---|---|
| *Archivos del Instituto Nacional de Higiene de Alfonso XIII* (*Madrid*) ... ... ... ... | 1922— | Vol. | 1— |
| *Boletín demográfico de España (Madrid) ... ... | 1927 | 3 trim. | |
| | 1928— | 1 trim. | — |
| *Boletín de estadística (Madrid) ... ... ... | 1927— | No. | 18— |
| [Boletin del Instituto Nacional de Higiene Alfonso XIII (Madrid) ... ... ... ... ... | 1913–19 | Vol. | 9–15] |
| **Boletín técnico de la Dirección general de sanidad* (*Madrid*) ... ... ... ... ... ... | 1926— | Vol. | 1— |
| *Medicina de los Países Cálidos* (*Madrid*) ... ... | 1928— | Vol. | 1— |
| *Revista Espanola de Medicina y Cirugia* (*Barcelona*) | 1918— | Vol. | 1— No. 1 |
| Revista de Higiene y Sanidad Pecuarias (Madrid) ... | 1917— | Vol. | 7— |
| *Revista Medicina de Barcelona* (*Barcelona*) ... ... | 1924— | Vol. | 1— |
| Semana Veterinaria (Madrid)... ... ... ... | 1927— | Vol. | 10— No. 528— |
| [Siglo Médico (Madrid) ... ... ... ... | 1924–28 | Vol. | 74–80] |

SWEDEN.

| | | | | |
|---|---|---|---|---|
| Acta Medica Scandinavica (Stockholm) ... ... | 1920— | Vol. | 54— | |
| Acta Radiologica (Stockholm) ... ... ... | 1927— | Vol. | 8— | |
| Hygiea (Stockholm) ... ... ... ... ... | 1920— | Vol. | 82— | |
| *Skandinavisk Veterinär-Tidskrift* (*Uppsala & Stockholm*) .. ... ... ... ... ... | 1911— | Vol. | 1— | |

SWITZERLAND.

| | | | | |
|---|---|---|---|---|
| Bibliography of Industrial Hygiene (Geneva) ... | 1925— | | | No. 10— |
| *International Journal of Public Health* (*Geneva*) ... | 1920–21 | Vols. | 1–2 | |
| International Labour Review (Geneva) ... ... | 1925— | Vol. | 12— | |
| Matériaux pour l'Étude des Calamités (Geneva) ... | 1924— | Vol. | 1— | |
| Monthly Epidemiological Report of the Health Section of the Secretariat, League of Nations (Geneva) ... ... ... ... ... ... | 1924— | No. | 64— | |
| Schweizer Archiv für Tierheilkunde (Zurich) ... | 1913— | Vol. | 55— | |
| Schweizerische Medizinische Wochenschrift (Basel) | 1927— | | | |
| Schweizer. Zeitschrift für Gesundheitspflege und Archiv für Sozialfürsorge (Zurich) ... ... | 1926— | Vol. | 6— | |

TURKEY.

| | | | | |
|---|---|---|---|---|
| *Bulletin Sanitaire de Constantinople* [formerly *Bulletin de l'Administration Sanitaire des frontières*] (*Constantinople*) ... ... ... ... | 1921–23 | Nos. | 1–20 | |

## AMERICA.

CANADA.

| | | | | |
|---|---|---|---|---|
| *Bulletin d'Hygiène (Montréal) ... ... ... | 1923— | Vol. | 10— | |
| Canadian Engineer (Toronto) ... ... ... | 1925— | Vol. | 49— | |
| *Canadian Medical Association Journal* (*Montreal*)... | 1911— | Vol. | 1— | |
| Public Health Journal (Toronto) ... ... ... | 1926— | Vol. | 17— | |

CENTRAL AMERICA AND WEST INDIES.

| | | | | |
|---|---|---|---|---|
| Boletin de la Associacion Médica de Puerto Rico (San Juan) ... ... ... ... ... ... | 1914— | Vol. | 10— | |
| *Bulletin de la Société de Médicine d' Haiti* (*Port-au-Prince*) ... ... ... ... ... ... | 1926— | Vol. | 1— | |
| *Jamaica Public Health Bulletin* ... ... ... | 1917— | | | |
| *Journal of the Port-of-Spain Medical Society ... | 1924<br>1927— | | | |
| [Monthly Reports of the Department of Health of the Panama Canal (Washington) ... ... ... | 1907–1919] | | | |
| Porto Rico Review of Public Health and Tropical Medicine (San Juan) ... ... ... ... | 1927— | Vol. | 3— | No. 1— |
| *Proceedings of the Medical Association of the Isthmian Canal Zone* [formerly *Proceedings of the Canal Zone Medical Association*] (*Mount Hope, C.Z.*) ... | 1908— | Vol. | 1— | |
| **Tropical Agriculture* (*Trinidad*) ... ... ... | 1924— | Vol. | 1— | |

SOUTH AMERICA.

ARGENTINE REPUBLIC.

| | | | | |
|---|---|---|---|---|
| [Anales del Departmento Nacional de Higiene (Buenos Aires) ... ... ... ... ... | 1919–22 | Vol. | 25–28] | |
| Anales del Instituto Modelo de Clinica Médica (Buenos Aires) ... ... ... ... ... | 1917— | Vol. | 2— | |
| *Boletin del Instituto de Clinica Quirúrgica* (*Buenos Aires*) ... ... ... ... ... ... ... | 1925— | Vol. | 1— | |
| Prensa Medica Argentina (Buenos Aires) ... ... | 1926— | Vol. | 13— | |
| [Revista del Instituto Bacteriológico (Buenos Aires) | 1918–19 | Vols. | 1–2 | [Incomplete] |
| *Revista de Medecina Veterinaria* (*Buenos Aires*) ... | 1925— | Vol. | 8— | |
| Revista Zootécnica (Buenos Aires) ... ... ... | 1920— | Vol. | 7— | No. 84— |
| Semana Medica (Buenos Aires) ... ... ... | 1925— | Vol. | 32— | |

BRAZIL.

| | | | | |
|---|---|---|---|---|
| *Amazonas Medico* (*Manaos*) ... ... ... ... | 1918–22 | Vols. | 1–4] | |
| **Annaes da Faculdade de Medicina de São Paulo* ... | 1926— | Vol. | 1— | |
| Annaes Paulistas de Medicina e Cirurgia (São Paulo) | 1915— | Vol. | 4— | No. 3— |
| **Archivos de Botanica do Estado de São Paulo*... ... | 1925— | Vol. | 1— | |
| *Archivos Brasileiros de Medicina* (*Rio de Janeiro*)... | 1911— | Vol. | 1— | |

BRAZIL—*cont.*

| | | | | |
|---|---|---|---|---|
| [Archivos da Escola Superior de Agricultura e Medicina Veterinaria (Pinheiro, E. do Rio) ... | 1917–18 | Vol. | 1–2 | |
| *Archivos de Hygiene* (*Rio de Janeiro*) ... ... | 1927— | Vol. | 1— | |
| Boletim Biologico (São Paulo) ... ... ... | 1926–27 | | | No. 1— |
| *Boletim hebdomadario de estatistica demographo-sanitaria da Cidade do Rio de Janeiro ... ... | 1928— | Vol. | 26— | |
| *Boletim do Instituto Brasileiro de Sciencias* (*Rio de Janeiro*) ... ... ... ... ... ... | 1925— | Vol. | 1— | |
| Boletim da Sociedade Brasileira de Medicina Veterinaria (Rio de Janeiro) ... ... ... | 1925— | Vol. | 2— | |
| Boletim de la Sociedade de Medicina e Cirurgia de S. Paulo (Brazil) ... ... ... ... ... | 1919— | Vol. | 2—(ser. 2) | No. 2— |
| Brazil Medico (Rio de Janeiro) ... ... ... | 1909— | Vol. | 23— | |
| A Folha Medica (Rio de Janeiro) ... ... ... | 1927— | Vol. | 8— | No. 22— |
| *Memorias do Instituto de Butantan* (*S. Paulo*) ... | 1918— | Vol. | 1— | |
| *Memorias do Instituto Oswaldo Cruz* (*Rio de Janeiro-Manguinhos*) ... ... ... ... ... ... | 1909— | Vol. | 1— | |
| *Revista de Biologia e Hygiene* (*Sao Paulo*) ... ... | 1927— | Vol. | 1— | |
| Revista Medico-Cirurgica do Brazil (Rio de Janeiro) | 1921— | Vol. | 29— | |
| Revista de Veterinaria e Zootechnia (Rio de Janeiro) | 1917— | Vol. | 7— | |
| *Sciencia Medica: Revista Brasileira de Medicina e Sciencias Affins* (*Rio de Janeiro*) ... ... ... | 1923— | Vol. | 1— | |
| *Servico Sanitario do Estado de São Paulo Trabalhos publicados* ... ... ... ... ... ... | 1918— | N.S. No. 1— | | |

BRITISH GUIANA.

| | | | | |
|---|---|---|---|---|
| British Guiana Medical Annual ... ... ... | 1890–92, 1894–1902, 1906— | | | |

CHILE.

| | | | | |
|---|---|---|---|---|
| **Boletín sanitario* (*Santiago*) ... ... ... ... | 1927— | Vol. | 1— | |

COLOMBIA.

| | | | | |
|---|---|---|---|---|
| Repertorio de Medicina y Cirugía (Bogota) ... ... | 1914— | Vol. | 6— | |
| *Revista Clinica* (*Medellin*) ... ... ... ... | 1916— | Vol. | 1— | |
| **Revista de medicina tropical* (*Bogotá*) ... ... | 1928— | Vol. | 1— | |

PERU.

| | | | | |
|---|---|---|---|---|
| *Anales de la Facultad de Medicina* (*Lima*) ... ... | 1918— | Vol. | 1— | |
| Cronica Médica (Lima) ... ... ... ... | 1913— | Vol. | 30— | |
| **Prensa médica* (*Arequipa*) ... ... ... ... | 1927— | Vol. | 1— | |

VENEZUELA.

| | | | | |
|---|---|---|---|---|
| [*Anales de la Direccion de la Sanidad Nacional* (*Caracas*) ... ... ... ... ... ... | 1919–23 | Vols. | 1–4] | |
| Gaceta Medica de Caracas (Caracas) ... ... ... | 1914— | Vol. | 21— | |
| [Gaceta Medica de Ciudad-Bolivar (Ciudad-Bolivar) | 1920–21 | No. | 67–80] | |

UNITED STATES.

| | | | | |
|---|---|---|---|---|
| American Journal of Diseases of Children (Chicago) ... | 1926— | Vol. | 31— | |
| *American Journal of Hygiene* (*Baltimore*) ... ... | 1921— | Vol. | 1— | |
| American Journal of Medical Sciences (Philadelphia) | 1927— | Vol. | 173— | |
| *American Journal of Pathology* (*Boston*) [*formerly* Journal of Medical Research] ... ... ... | 1925— | Vol. | 1— | |
| American Journal of Physiology (Baltimore) ... | 1927— | Vol. | 80— | |
| American Journal of Public Health (New York) ... | 1913–16 | Vols. | 3–6 | |
| | 1924— | Vol. | 14— | |
| American Journal of Syphilis (St. Louis) ... ... | 1925— | Vol. | 9— | No. 4— |
| *American Journal of Tropical Diseases and Preventive Medicine* (*New Orleans*) ... ... ... | 1913—16 | Vols. | 1–3 | |
| *American Journal of Tropical Medicine* (*Baltimore*) | 1921— | Vol. | 1— | |
| American Physical Education Review (Springfield, Mass.) ... ... ... ... ... ... | 1927— | Vol. | 32— | |
| American Review of Tuberculosis (New York) ... | 1926— | Vol. | 12— | |
| *American Society of Tropical Medicine—Transactions* (*New Orleans*) ... ... ... ... ... | 1904–14 | Vols. | 1–9 | |
| Annals of Medical History (New York) ... ... | 1927— | Vol. | 11— | |

UNITED STATES—*cont.*

| | | | | |
|---|---|---|---|---|
| Archives of Dermatology & Syphilology [*formerly* Journal of Cutaneous Disease including Syphilis] (Chicago) | 1913— | Vol. | 31— | |
| *Archives of Internal Medicine* (*Chicago*) | 1908— | Vol. | 1— | |
| **Biological Abstracts* (*Menasha, Wis.*) | 1926— | Vol. | 1— | |
| **Boletin de la Oficina sanitaria pan-americana* (*Washington*) | 1922— | Vol. | 1— | |
| Boston Medical & Surgical Journal (Boston) | 1915–27 | Vol. | 172—197 | |
| [*Bulletin of the Antivenin Institute of America* (*Philadelphia*) | 1927–28 | Vol. | 1–2] | |
| **Bulletin of the New York Academy of Medicine, 2nd Series* | 1925— | Vol. | 1— | |
| Bureau of Animal Industry Bulletins (Washington) | 1909— | [Incomplete] | | |
| Bureau of Education Bulletins (Washington) | 1926— | | | |
| California and Western Medicine (San Francisco) | 1926— | Vol. | 25— | No. 2— |
| *Clifton Medical Bulletin (Clifton Springs, N.Y.) | 1922— | Vol. | 8— | |
| [*Collected Reprints from the George Williams Hooper Foundation for Medical Research* (Univ. of California) | 1915–20 | Vols. | 1–4] | |
| [*Collected Studies from the Research Laboratory, Department of Health, City of New York* | 1906–19 | Vols. | 1–9] | |
| Cornell Veterinarian (Ithaca, N.Y.) | 1917— | Vol. | 7— | |
| Engineering News Record (New York) | 1925— | Vol. | 95 | No. 15— |
| Experiment Station Record (Washington) | 1921— | Vol. | 44— | |
| *Health News* (*Albany, N. Y.*) | 1924— | Vol. | 1— | |
| Hospital Social Service (New York) | 1926— | Vol. | 13— | |
| Hygeia (Chicago) | 1924— | Vol. | 2— | |
| Hygienic Laboratory Bulletins (Washington) | 1903— | [Incomplete] | | |
| *Illinois Biological Monographs* (*Urbana*) | 1915— | Vol. | 1— | |
| [Index Medicus (Washington) | 1912–20 | (2 ser.) Vol. | 10–18] | |
| Industrial Hygiene Bulletin (New York) | 1926— | Vol. | 3— | |
| Journal of Agricultural Research (Washington) | 1920— | Vol. | 20— | |
| Journal of the American Medical Association (Chicago) | 1910— | Vol. | 54— | |
| * *Journal of the American Statistical Association* (*New York*) | 1928— | Vol. | 23— | |
| *Journal of the American Veterinary Medical Association (Detroit) | 1915–16 | Vols. | 48–49 | |
| | 1917–23 | Vols. | 51–62] | |
| | 1924— | Vol. | 65— | |
| Journal of the American Water Works Association (Baltimore) | 1925— | Vol. | 14— | |
| *Journal of Applied Psychology (Worcester, Mass.) | 1928— | Vol. | 12— | |
| *Journal of Bacteriology (Baltimore) | 1916–21 | Vols. | 1–6 | |
| | 1927— | Vol. | 13— | |
| Journal of Biological Chemistry (Baltimore) | 1927— | Vol. | 72— | |
| *Journal of Economic Entomology* (*Geneva, N. Y.*) | 1908— | Vol. | 1— | |
| *Journal of Experimental Medicine* (*New York*) | 1896— | Vol. | 1— | |
| Journal of Immunology (Baltimore) | 1925— | Vol. | 10— | |
| Journal of Industrial Hygiene & Abstract of Literature (Baltimore) | 1922— | Vol. | 3— | |
| *Journal of Infectious Diseases* (*Chicago*) | 1904— | Vol. | 1— | |
| Journal of Laboratory & Clinical Medicine (St. Louis) | 1916— | Vol. | 2— | |
| Journal of Medical Research (Boston) [now *American Journal of Pathology*] | 1901–24 | Vols. | 6–44 | |
| *Journal of Parasitology* (*Urbana*) | 1914— | Vol. | 1— | |
| Journal of Pharmacology & Experimental Therapeutics (Baltimore) | 1925— | Vol. | 25— | |
| *Journal of Preventive Medicine* (*Baltimore*) | 1926— | Vol. | 1— | |
| [Journal of Sociologic Medicine (Easton) | 1916–18 | Vol. | 17–19] | |
| Long Island Medical Journal (Brooklyn) | 1919— | Vol. | 13— | |
| [Medical Record (New York) | 1914–22 | Vols. | 86–101] | |
| Mental Hygiene (Albany) | 1926— | Vol. | 10— | |
| Mental Hygiene Bulletin (New York) | 1926— | Vol. | 4— | No. 8— |
| Metropolitan Life Insurance Co. Statistical Bulletin (New York) | 1927— | Vol. | 7— | |
| Military Surgeon (Washington) | 1913— | Vol. | 33— | |

UNITED STATES—*cont.*

| | | | |
|---|---|---|---|
| Monographs of the Rockefeller Institute for Medical Research (New York) ... ... ... ... | 1920— | No. | 13— |
| **Monthly Vital Statistics Review N. Y. State Dept. of Health* (*Albany*) ... ... ... ... ... | 1920— | Vol. | 1— |
| New England Journal of Medicine (formerly Boston Medical & Surgical Journal) (Boston) ... ... | 1928— | Vol. | 198— |
| New Orleans Medical & Surgical Journal (New Orleans) ... ... ... ... ... ... | 1912— | Vol. | 65— |
| [New York Medical Journal (New York) ... ... | 1910–20 | Vols. | 91–112] |
| *North American Veterinarian (Evanston, Ill.) ... | 1928— | Vol. | 9— |
| *Physiological Reviews (Baltimore) ... ... ... | 1923— | Vol. | 3— |
| Proceedings of the New Jersey Mosquito Extermination Association ... ... ... ... ... | 1914— | | |
| *Proceedings of the Society for Experimental Biology and Medicine* (*New York*) ... ... ... ... | 1903— | Vol. | 1— |
| Proceedings of the United States National Museum (Washington) ... ... ... ... ... | 1879— | Vol. | 2— [Incomplete] |
| Public Health Bulletins (Washington) ... ... | 1908— | | [Incomplete] |
| Public Health Engineering Abstracts (Washington) | 1924— | | |
| Public Health Reports (Washington) ... ... | 1909— | Vol. | 24— |
| **Quarterly Cumulative Index Medicus* (*Chicago*) ... | 1927— | Vol. | 1— |
| *School of Hygiene & Public Health: Johns Hopkins University: Collected Papers* (*Baltimore*) ... | 1920— | Vol. | 1— |
| School Life (Washington) ... ... ... ... | 1927— | Vol. | 13— |
| [*Social Pathology* (Washington) ... ... ... | 1924— | Nos. | 1–9] |
| Southern Medical Journal (Birmingham, Alabama) | (1911, 1912 incomplete) 1913— | Vol. | 6— |
| *Southwestern Medicine* (*Phoenix, Arizona*) ... ... | 1917— | Vol. | 1— |
| Studies from the Rockefeller Institute for Medical Research Reprints (New York) ... ... ... | 1913— | Vol. | 17— |
| [Texas State Journal of Medicine (Fort Worth) ... | 1905–22 | Vols. | 1–18] [Incomplete] |
| United States Naval Medical Bulletin (Washington) | 1909— | Vol. | 3— |
| *United States Veterans' Bureau Medical Bulletin* (*Washington*) ... ... ... ... ... | 1925— | Vol. | 1— |
| *United States War Department Bulletin* (*Washington*) | 1913— | No. | 1— |
| University of California (Berkeley): | | | |
| Publications in Entomology ... ... ... | 1906— | Vol. | 1— |
| Publications in Pathology ... ... ... ... | 1903— | Vol. | 1— |
| Publications in Public Health ... ... ... | 1928— | Vol. | 1— |
| Publications in Zoology ... ... ... ... | 1908— | Vol. | 6— |
| *University of Kansas*: | | | |
| *Science Bulletin* (*Lawrence*) ... ... ... | 1902— | Vol. | 1— |
| Venereal Disease Information (Washington) ... | 1923— | Vol. | 4— |
| Veterinary Medicine (Chicago) ... ... ... | 1913— | Vol. | 8— |
| *Zoopathologica* (*New York*) ... ... ... ... | 1926— | Vol. | 1— |

## ASIA.

CHINA.

| | | | |
|---|---|---|---|
| [*Bulletin Médical Franco-Chinois* (*Peking*) ... ... | 1920 | Vol. | 1 |
| *Caduceus (Hongkong) ... ... ... ... ... | 1928— | Vol. | 7— |
| China Medical Journal (Shanghai) ... ... ... | 1912— | Vol. | 26— |
| *Contributions from the Peking Union Medical College* (*Peking*) ... ... ... ... ... ... ... | 1921— | Vol. | 1— |
| **National Epidemic Prevention Bureau, Peking, China. Monthly Returns* ... ... ... ... | 1925— | Vol. | 1— |
| National Medical Journal of China (Shanghai) ... | 1919— | Vol. | 5— |

EAST INDIAN ARCHIPELAGO.

| | | | |
|---|---|---|---|
| Geneeskundig Tijdschrift voor Nederlandsch-Indië (Weltevreden) ... ... ... ... ... | 1901— | Vol. | 41— [Incomplete] |
| Journal of the Philippine Islands Medical Association (Manila) ... ... ... ... ... ... | 1921— | Vol. | 1— |
| Mededeelingen uit het Geneeskundig Laboratorium te Weltevreden (Batavia) ... ... ... ... | 1919— | 3 Ser. A. | No. 1 |

EAST INDIAN ARCHIPELAGO—*cont.*

| | | | |
|---|---|---|---|
| *Mededeelingen van het Pathologisch Laboratorium te Medan-Sumatra* (*Medan*) ... ... ... ... | 1927— | | No. 1— |
| *Mededeelingen van den Dienst der Volksgezondheid in Nederlandsch-Indië* [formerly "*van den Burgerlijken Geneeskundigen Dienst*"] (*Batavia*) ... | 1912— | Vol. | 1— |
| **Monthly Bulletin of the Philippine Health Service* (*Manila*) ... ... ... ... ... ... | 1921— | Vol. | 1 |
| Nederlandsch-Indische Bladen voor Diergeneeskunde (Buitenzorg) ... ... ... ... ... ... | 1919— | Vol. | 31— |
| Philippine Agricultural Review (Manila) ... ... | 1916— | Vol. | 9— |
| *Philippine Journal of Science* [formerly *Philippine Journal of Science. Section B. Philippine Journal of Tropical Medicine*] (*Manila*)... ... | 1906— | Vol. | 1— |
| *Sanidad y beneficencia (Havana) ... ... ... | 1909 | Vol. | 1 |
| | 1910— | Vol. | 3— |
| *Vida nueva (Havana) ... ... ... ... ... | 1927— | Vol. | 19— |

INDIA AND CEYLON.

| | | | |
|---|---|---|---|
| Agricultural Research Institute, Pusa, Bulletins. (Calcutta) ... ... ... ... ... ... | 1912— | | [Incomplete] |
| *Arquivos da Escola Medico-Cirurgica de Nova Goa.* Ser. A. (*Nova Goa*) ... ... ... ... | 1927— | | No. 1— |
| *Arquivos Indo-Portugueses de Medicina e Historia Natural* (*Nova Goa*) ... ... ... ... | 1921 | Vol. | 1— |
| Boletim Geral de Medicina e Farmacia (Nova Goa)... | 1919— | 5 Ser. | No. 1— |
| *Ceylon Journal of Science, Sect. D., Med. Sci.* (*Colombo*) ... ... ... ... ... ... | 1924— | Vol. | 1— |
| [Indian & Eastern Engineer (Calcutta) ... ... | 1915–21 | Vols. | 36–49] |
| [Indian Engineering (Calcutta) ... ... ... | 1915–24 | Vols. | 57–75 No. 6] |
| *Indian Journal of Medical Research* (*Calcutta*) ... | 1913— | Vol | 1— |
| Indian Medical Gazette (Calcutta) ... ... ... | 1889–1908 | [Vols. | 24 & 34–43 |
| | 1909— | Vol. | 44—Incomplete |
| *Indian Medical Record (Calcutta) ... ... ... | 1910 | Vol. | 30 |
| | 1915–18 | Vols. | 35–37 |
| | 1919— | Vol. | 39— |
| *Indian Medical Research Memoirs* (*Calcutta*) ... | 1924— | No. | 1— |
| Indian Veterinary Journal (Madras)... ... ... | 1928— | Vol. | 4— |
| Journal of the Association of Medical Women in India (Delhi) ... ... ... ... ... ... | 1923— | Vol. | 11— |
| *Journal of Tropical Veterinary Science* (*Calcutta*)... | 1906–12 | Vols. | 1–7 |
| Memoirs of the Department of Agriculture in India (Calcutta) : | | | |
| Bacteriological Series ... ... | 1912— | Vol. | 1— |
| Veterinary Series ... ... ... | 1913— | Vol. | 1— |
| *Paludism* (*Simla*) ... ... ... ... ... | 1910–12 | Nos. | 1–5 |
| Report of the Agricultural Research Institute and College, Pusa. (Calcutta) ... ... ... | 1907— | | [Incomplete] |
| *Scientific Memoirs by Officers of the Medical & Sanitary Department of the Government of India* (*Calcutta*) ... ... ... ... ... ... | 1902–12 | (New Ser.) | Nos. 1–60 |

INDO-CHINA, AND FURTHER INDIA.

| | | | |
|---|---|---|---|
| Annual Reports of the Institute for Medical Research, Kuala Lumpur, Federated Malay States. (Kuala Lumpur) ... ... ... ... | 1912— | | |
| *Archives des Instituts Pasteur d'Indochine* (*Saigon*)... | 1925— | Vol. | 1— |
| *Bulletins from the Institute for Medical Research, Federated Malay States* ... ... ... ... | 1924— | | No. 1— |
| [Bulletin de la Société Médico-Chirurgicale de l'Indochine (Hanoi & Haiphong) ... ... ... | 1910–22 | Vol. | 1–12 [Incomplete |
| [Medical Journal of the Siamese Red Cross ... | 1918–20 | Vol. | 1–3] |
| *Monthly Bulletin of the Eastern Bureau, League of Nations Health Organisation* (*Singapore*)... ... | 1925— | Vol. | 1— |
| *Malayan Medical Journal* (*Penang*) ... ... | 1926— | Vol. | 1— |
| Studies from Institute for Medical Research, Federated Malay States (Singapore) ... ... | 1901— | Vol. | 1—[Incomplete] |

INDIO-CHINA AND FURTHER INDIA—*cont.*

| | | | | |
|---|---|---|---|---|
| Transactions of the Malaya Branch of the British Medical Association (Singapore) ... ... ... | 1923— | No. | 9— | |
| *Weekly Fasciculus. Epidemiological Intelligence received by the Eastern Bureau, League of Nations Health Organisation (Singapore)* ... ... ... | 1925— | Vol. | 1— | |

JAPAN.

| | | | | |
|---|---|---|---|---|
| Acta Medicinalia in Keijo [formerly Mitteilungen aus der medizinischen Akademie zu Keijo] ... | 1928— | Vol. | 11— | |
| *Acta Scholae Medicinalis Universitatis Imperialis in Kioto (Kioto)* ... ... ... ... ... | 1916— | Vol. | 1— | |
| *Aichi Journal of Experimental Medicine (Nagoya)*... | 1923— | Vol. | 1— | No. 1— |
| Fukuoka-Ikwadaigaku-Zasshi (Fukuoka) ... ... | 1927— | Vol. | 20— | No. 1— |
| *Japanese Journal of Medical Sciences. Abstracts (Tokyo)* ... ... ... ... ... ... | 1922— | Vol. | 1— | |
| Japan Medical World (Tokyo) ... ... ... | 1921— | Vol. | 1— | |
| Japanese Journal of Dermatology and Urology [formerly Japanische Zeitschrift für Dermatologie u. Urologie] (Tokyo) ... ... ... ... | 1917— | Vol. | 17 | No. 7— |
| [Jikwa Zasshi ... ... ... ... ... ... | 1917–22] | | | |
| *Journal of the Chosen Medical Association (Chosen) | 1927— | No. | 72— | |
| Journal of the College of Agriculture, Imperial University of Tokyo (Tokio) ... ... ... | 1916— | Vol. | 3— | |
| *Journal of the Japanese Society of Veterinary Science (Tokyo)* ... ... ... ... ... ... | 1922— | Vol. | 1— | |
| Journal of Oriental Medicine (Dairen) ... ... | 1923— | Vol. | 1— | No. 2— |
| Journal of the Public Health Association of Japan (Tokio) ... ... ... ... ... ... | 1926— | Vol. | 2— | |
| *Kitasato Archives of Experimental Medicine (Tokyo)* | 1917— | Vol. | 1— | |
| [Kyoto Igaku Zassi (Kyoto) ... ... ... ... | 1917–21 | Vols. | 14–18] | |
| *Mitteilungen aus der medizinischen Akademie zu Keijo [*now* Acta Medicinalia in Keijo] ... ... | 1917–24 | Vol. | 1–7 | |
| Mitteilungen aus der medizinischen Fakultät der Kaiserlichen Kyushu-Universität (Fukuoka) ... | 1917— | Vol. | 3— | |
| Mitteilungen aus der medizinischen Fakultät der Kaiserlichen Universität zu Tokyo (Tokio) ... | 1911— | Vol. | 10— | |
| *Mitteilungen ueber allgemeine Pathologie und pathologische Anatomie* [formerly *Mitteilungen aus dem pathologischen Institut der Kaiserlichen Universität zu Sendai, Japan*] ... ... ... ... ... | 1919— | Vol. | 1— | |
| [Mitteilungen der Medizinischen Gesellschaft zu Tokio (Tokio) ... ... ... ... ... | 1917–20 | Vols. | 31–34] | |
| Nagoya Journal of Medical Science (formerly Aichi Journal of Experimental Medicine) (Nagoya) ... | 1928— | Vol. | 2— | No. 1— |
| Okayama–Igakkai–Zasshi (Okayama) ... ... | 1925— | | | No. 423— |
| *Oriental Journal of Diseases of Infants (Kyoto)* ... | 1926— | Vol. | 1— | |
| Saikingaku Zasshi .. ... ... ... ... | 1917–23 | | | |
| Sei-i-Kwai Medical Journal (Tokio) ... ... | 1913— | Vol. | 32— | |
| Taiwan Igakkai Zasshi (Formosa) .... ... ... | 1917— | | | |
| Tokyoer Medizinische Wochenschrift (Tokyo) ... | 1917— | No. | 2046— | |
| [*Verhandlungen der Japanischen Pathologischen Gesellschaft (Tokyo)* ... ... ... ... | 1911— | Vol. | 1— | |

## AFRICA.

| | | | | |
|---|---|---|---|---|
| *Archives des Instituts Pasteur de l'Afrique du Nord (Algiers & Tunis)* ... ... ... ... ... | 1921–22 | Vols. | 1–2 | |
| *Archives de l'Institut Pasteur d'Algérie (Algiers)* ... | 1923— | Vol. | 1— | |
| *Archives de l'Institut Pasteur de Tunis (Tunis)* ... | 1906— | Vol. | 1— | |
| *Archivo Italiano di Science Mediche Coloniali (Tripoli)* ... ... ... ... ... ... | 1920— | Vol. | 1— | |
| *Bulletin du Comité d'études historiques et scientifiques de l'Afrique occidentale française (Gorée)... | 1924— | Vol. | 7— | |
| *Bulletin Médical du Katanga (Elisabethville)* ... | 1924— | No. | 1— | |
| *Bulletin de la Société Medico-Chirurgicale française de l'Ouest-Africain (Dakar)*... ... ... ... | 1919–21 | Vols. | 1–3 | |

AFRICA—*cont.*

| | | | | |
|---|---|---|---|---|
| Bulletin de la Société Ophthalmologie d'Egypte ... | 1912— | | | |
| [Journal of the Department of Agriculture, Union of South Africa (Pretoria) ... ... ... ... | 1921–26 | Vols. | 1–12] | |
| *Journal of the Medical Association of South Africa* (*British Medical Association*) (*Cape Town*) ... | 1927— | Vol. | 1— | |
| *Kenya and East African Medical Journal* (formerly *Kenya Medical Journal*) (*Nairobi*) ... ... | 1924— | Vol. | 1— | |
| Magallah Tibbiah El Masriah (Cairo) ... ... | 1923— | | | |
| [Medical Journal of South Africa [formerly Transvaal Medical Journal] (Johannesburg) ... ... ... | 1912–26 | Vols. | 8–22] | |
| [*Nyasaland Sleeping Sickness Diary* (*Zomba*) ... | 1908–15 | Nos. | 1–25] | |
| *Proceedings of the Transvaal Mine Medical Officers' Association* (*Johannesburg*) ... ... ... | 1921— | Vol. | 1— | |
| **Publications of the South African Institute for Medical Research* (*Johannesburg*) ... ... ... ... | 1913— | Vol. | 1— | |
| *Revista Médica de Angola* (*Loanda*) ... ... ... | 1921— | Vol. | 1— | |
| Rhodesia Agricultural Journal (Salisbury) ... ... | 1915— | Vol. | 12— | |
| [South African Medical Record (Cape Town) ... | 1910— | Vol. | 8—] | |
| *West African Medical Journal* (*Lagos*) ... ... | 1927— | Vol. | 1— | |

## AUSTRALASIA.

AUSTRALIA.

| | | | | |
|---|---|---|---|---|
| *Australian Institute of Tropical Medicine Collected Papers* (*Townsville*) ... ... ... ... ... | 1914— | No. | 1— | |
| **Australian Journal of Experimental Biology and Medical Sciences* (*Adelaide*)... ... ... ... | 1924— | Vol. | 1— | |
| *Commonwealth of Australia: Quarantine Service Publications* (*Melbourne*) .. ... ... ... | 920–23 | Nos. | 1–19 | |
| *Commonwealth of Australia: Department of Health. Service Publications* (*Melbourne*) ... ... ... | 1922— | No. | 20— | |
| *Industrial Hygiene* ... ... ... ... | 1924— | No. | 1— | |
| *Tropical Division* ... ... ... ... | 1923— | No. | 1— | |
| *Veterinary Hygiene* ... ... ... ... | 1924— | No. | 1— | |
| *Health* (*Melbourne*) ... ... ... ... ... | 1923— | Vol. | 1— | |
| [*Health Forum* (*Sydney*) ... ... ... ... | 1923— | Vol. | 1— | Nos. 1–4] |
| *Journal of the Australian Veterinary Association* (*Sydney*) ... ... ... ... ... ... | 1925— | Vol. | 1— | |
| *Medical Journal of Australia* (*Sydney*) ... ... | 1914— | Vol. | 1— | |
| Queensland Agricultural Journal ... ... ... | 1919— | Vol. | 12— | |
| *Records of the South Australian Museum* ... ... | 1918— | Vol. | 1— | |

NEW ZEALAND.

| | | | | |
|---|---|---|---|---|
| New Zealand Medical Journal (Wellington) ... | 1913— | Vol. | 12— | No. 45— |

---

NOTE.—The Director would consider proposals for the exchange of the Bureau publications with other medical and scientific journals in which original papers on hygiene, tropical diseases or parasitology are published.

---